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# LAND USE and RESOURCE DEVELOPMENT in the EASTERN SLOPES

## SMOKY RIVER BASIN

# PROCEEDINGS OF THE PUBLIC HEARINGS

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PART IX

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Alberta
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# LAND USE
# and
# RESOURCE DEVELOPMENT
# in the
# EASTERN SLOPES

## SMOKY RIVER BASIN

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JUNE - JULY, 1973

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9912-107 Street

Edmonton, Alberta

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| ATHABASCA RIVER BASIN | | |
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SEPTEMBER, 1973

# FOREWORD

Geographically, Alberta is a land of diversity. From the dry irrigated croplands of the south through the lush farming and ranching country of central Alberta to the sparsely settled wildlands of the north the landscape presents a constantly changing panorama.

Nowhere, however, is diversity more apparent than in the approach to the Rockies. There indeed, as one enters the region of the Eastern Slopes, Alberta takes on its most dramatic change.

As though to prepare one in advance for the enormity of the Rocky Mountains, the landscape assumes a rolling gait as the farmlands and ranchlands of the plains give way to the forested areas of the foothills.

In this area, which has come to be known as the Eastern Slopes, lands have been mostly protected and presered for public ownership in the name of the Crown, and important national and provincial parks are located here.

To many Albertans, the Eastern Slopes represent an area of, as yet, relatively undisturbed forests which should be preserved ~~in~~ their natural state for posterity.

To others, the area representa a bountiful supply of valuable resources which should be developed to the benefit of Albertans.

Some others view the Eastern Slopes in the light of combined benefits and hope that they can be made to yield their riches without prejudice to the natural state.

Of the treasures that reside in the Eastern Slopes, recreation ranks high in the minds of many people and indeed, recreation in its many forms is now enjoyed in the Eastern Slopes in both winter and summer by many thousands of people each year.

In addition, land in the Eastern Slopes is now used or is proposed for use for such purposes as tourism, urban development, forest utilization, mineral resource industries, surface mining, oil and gas development, underground coal mining, agriculture, watershed conservation, domestic water supplies, hydroelectric power developments, wildlife and fishing management, wilderness and natural areas, institurional use by charitable, religious and other groups, archaeological sites, research, Indian reservations and national and provincial parks.

These various present and potential uses of resources within the area may either have no effect on each other, complement each other, conflict with each other, or relate to each other in sequential ways.

In order to publicly explore these interests and discover the concerns they generate, the Environment Conservation Authority was requested on behalf of the Government of Alberta to hold comprehensive and wide-ranging hearings on Land Use and Resource Development in the Eastern Slopes.

It was the objective of the hearings to enquire into all potential uses and to formulate ways in which optimum benefits and environment conservation could be achieved now and for the future from the various resources of the Eastern Slopes.

A further objective was to consider and evaluate the views of the public on specific recreational and tourist development proposals for the area. Finally, the Authority would lay the views presented to it, along with its own recommendations thereon, before the Government of Alberta.

For the purpose of the public hearings, the Eastern Slopes were divided into five spearate districts corresponding to the five major watershed basins and outlined by the statutory boundaries of the four Regional Planning Areas and Improvement District No. 14.

The eastern boundary of the area was taken as the eastern edge of the foothills, prescribed by an arc lying to the west of the cities of Lethbridge, Calgary, Red Deer, Edmonton and Grande Prairie.

As background to the hearings, the Environment Conservation Authority released a series of 12 Information Bulletins; five of these pertained specifically to the separate watershed basins and were prepared by the individual regional planning commissions.

Hearings were held (during June and July of 1973) in each of the watershed basins as well as in the five major cities.

The present publication constitutes the Proceedings of the Public Hearings on Land Use and Resource Development in the Eastern Slopes. A separate volume has been allocated for each location, and each volume contains a complete transcript of all presentations heard at that location as well as the discussions which followed.

In addition, a final volume contains all written submissions which were received prior to and following the hearings, but which were not presented verbally at the hearings, along with an index to all volumes.

# ACKNOWLEDGEMENTS

The contribution that a public hearing can make to the advancement of any subject depends very largely on the submissions, briefs and presentations made to it by members of the public.

The Environment Conservation Authority is particularly appreciative of the efforts of the very large number of individuals, groups and associations that contributed both orally and in writing to its series of hearings on Land Use and Resource Development in the Eastern Slopes.

For those who prepare submissions it is most desirable that they have ready access to relevant information on the subject. This involves not only compiling and presenting the information in an acceptable form, but also distributing it widely to the interested public.

In this most important aspect of the work leading up to the public hearings the Authority received considerable assistance from the Regional Planning Commissions of the individual watershed basins covered by the hearings.

Not only did the officers and staffs of these commissions prepare comprehensive and highly informative position statements on behalf of the Authority for each basin, but at each location a senior official of the commission presented the position statement to the Authority at the beginning of the hearing, and most ably responded to the detailed questioning which followed.

For these invaluable services the Authority expresses its sincere thanks to the officials and staff of the Oldman River, Calgary, Red Deer, and Peace River Regional Planning Commissions and Improvement District No. 14 of the Provincial Planning Branch.

Further very important information of value to those preparing briefs was produced by a special *ad hoc* committee of the Authority's Science Advisory Committee. For the very able discussions and recommendations on land use conflicts which they presented in Information Bulletin No. 12 the Authority wishes to compliment and thank the members of this committee.

In locating, setting up and operating its extensive chain of information centres throughout the province the efforts of the Authority would have been frustrated without the willing co-operation and expert assistance of a number of people and organizations.

To the Universities of Lethbridge, Calgary and Alberta, the Regional Planning Commissions of Oldman River, Calgary, Red Deer and Peace River, the Community Colleges of Lethbridge, Red Deer and Peace River, and the public libraries of Blairmore, Coleman, Calgary, Canmore, Drumheller, Edmonton, Edson, Grande Cache, Grande Prairie, Hinton, Lethbridge, Lloydminster, Peace River, Red Deer, Rocky Mountain House, Wetaskiwin and Whitecourt, and their staff, the Authority expresses its sincere thanks.

The Authority also gratefully acknowledges the efforts of the Conservation and Utilization Committee of the Government of Alberta for their fine pre-hearing report, "A Choice of Land Use Alternatives", and the Department of Lands and Forests for their assistance in processing the many commercial proposals for tourism and recreational projects as well as for providing a competent addition to the Authority's observer staff for the hearings.

Finally, to its own staff, whose unfailing support and tireless efforts sustained the many extended sessions of the hearings, the Authority takes pride in expressing its gratitude.

W.R. TROST,
Chairman,
Environment Conservation Authority.

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# LAND USE
# and
# RESOURCE DEVELOPMENT
# in the
# EASTERN SLOPES

## INTRODUCTION

Alberta
ENVIRONMENT CONSERVATION AUTHORITY

# INTRODUCTION

The Environment Conservation Authority was requested by the Honourable W.J. Yurko, Minister of the Environment, to hold public hearings on land use and resource development in Alberta's eastern slopes of the Rocky Mountains. These hearings took place during June and July, 1973 in Coleman, Lethbridge, Calgary, Canmore, Rocky Mountain House, Red Deer, Hinton, Edmonton, Grande Cache and Grande Prairie.

## PREPARATION FOR THE HEARINGS

In order to place background information before the public, a series of information bulletins was published. Five of these were prepared by the relevant regional planning commissions and the Provincial Planning Board, and dealt specifically with their sections of the eastern slopes. The additional bulletins were produced by the Authority or by various involved agencies.

A very extensive mailing of this material was made to interested groups, organizations and individuals. As well, a system of information centres was established in each of the hearing locations as well as in other relevant locations. These centres were supplied with sets of background publications, as well as a reading list and bibliography on the hearing subject.

Direct public contact was developed and maintained through Authority member visits throughout the study area and through continual contact with the various sections of the media.

Advertising for the hearings took various forms. Newspapers contained general notices inviting participation, specific advertisements advising of local times and locations, and "legal" notices listing what commercial recreational proposals would be discussed at specific hearing locations. Radio and television were utilized in much the same manner to inform and invite public participation.

## THE PUBLIC HEARINGS

The dates and places of the hearings were as follows:

| | |
|---|---|
| Coleman | June 11 and 12 |
| Lethbridge | June 13 and 14 |
| Calgary | June 18, 19 and 20 |
| Canmore | June 22 and 23 |
| Rocky Mountain House | June 26 |
| Red Deer | June 28 and 29 |
| Hinton | July 3 |
| Edmonton | July 5, 6 and 7 |
| Grande Cache | July 10 |
| Grande Prairie | July 12 |

At each of the hearings the session was opened with introductory remarks by the Authority. The regional planning commission, or the Provincial Planning Branch in the instance of Improvement District No. 14, was then called upon to give background to the concerns and problems of the area involved.

The Authority then heard briefs or summaries presented by concerned individuals and groups. The panel, consisting of: Dr. W.R. Trost, Chairman; P.J. Dowling, Vice-Chairman; and J.J. Kinisky, Member; questioned those persons submitting concerns in order to fully elucidate the concepts and opinions put forward by them.

Major proposals for development in the study area were presented following the general submissions. Here the opportunity was given for the developers to highlight their projects. They were then questioned by the Authority panel, then by interested persons in attendance at the hearing.

The last segment of the hearing at each location was given to open discussion, during which a free exchange of ideas and concerns took place.

A total of 308 submissions was made as well as 14 commercial recreational proposals.

# LAND USE
# and
# RESOURCE DEVELOPMENT
# in the
# EASTERN SLOPES

## GRANDE CACHE
## JULY 10

Alberta

ENVIRONMENT CONSERVATION AUTHORITY

# LAND USE AND RESOURCE DEVELOPMENT
# IN THE
# EASTERN SLOPES

## THE SMOKY RIVER DRAINAGE BASIN

Discussion paper prepared by the Peace River Regional Planning Commission for the Environment Conservation Authority.

April, 1973

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## Introduction

The Government of Alberta through the Environmental Conservation Authority is holding comprehensive and wide ranging hearings on Land Use and Resource Development in the Eastern Slopes of the Rocky Mountains and the Foothills Areas of Alberta.

For the purpose of the hearings, the Eastern Slopes are defined as the total mountain and foothills areas in the Province from its western and north-western border with British Columbia and its southern border with Montana to the eastern limits of the foothills. The National Parks and Indian Reservations are not included.

The eastern boundary of the area corresponds with the eastern edges of the foothills and is prescribed by an arc lying to the west of the Cities of Lethbridge, Calgary, Red Deer, Edmonton and Grande Prairie, as indicated on map #1.

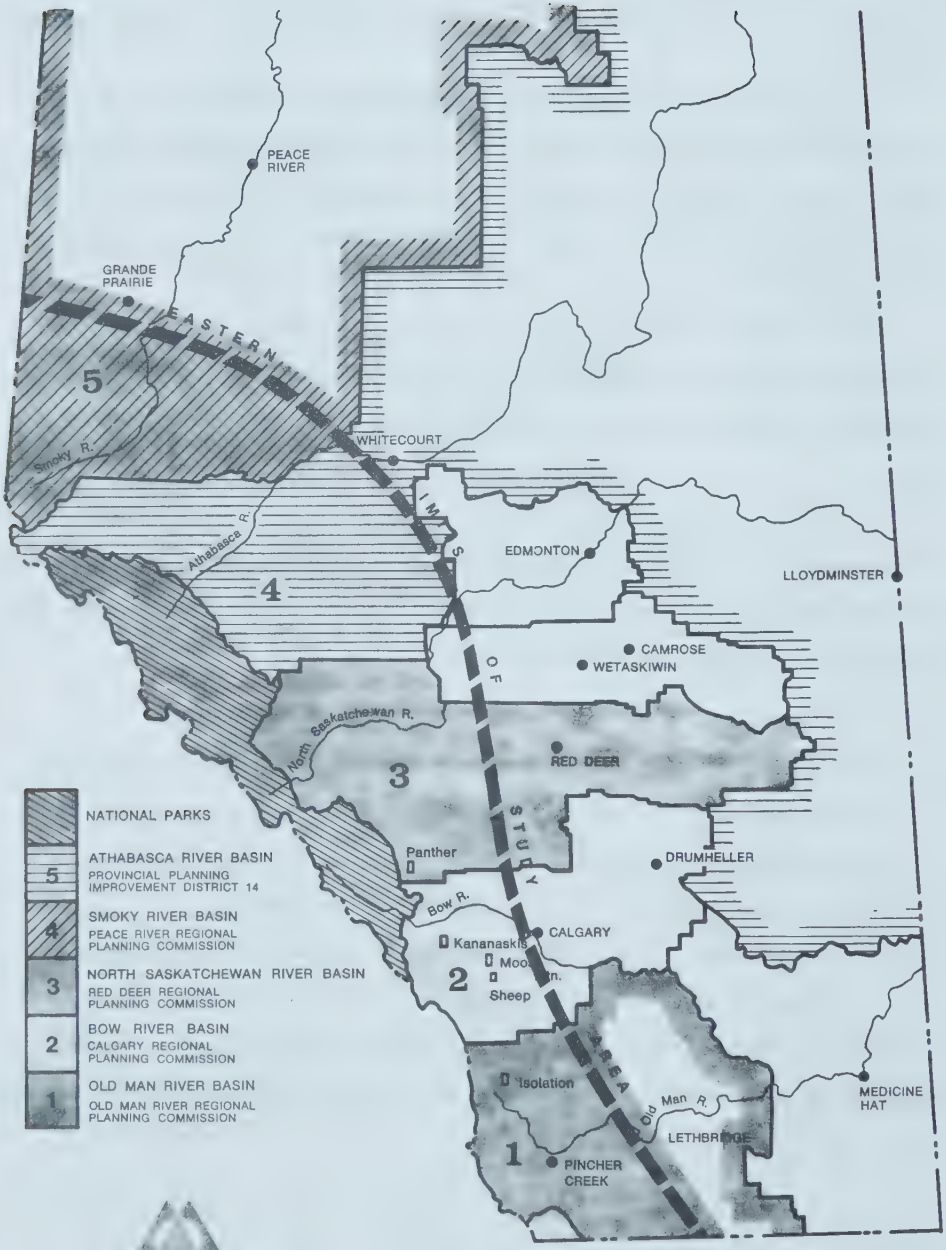
The Eastern Slopes will be divided into five separate districts corresponding to the four major Regional Planning Areas and Improvement District #14. Each district will be identified with the name of its watershed and be associated with the regional planning area as follows:

| Watersheds | Planning Authorities |
|---|---|
| 1. Old Man River Basin | Old Man River Regional Planning Commission |
| 2. Bow River Basin | Calgary Regional Planning Commission |
| 3. North Saskatchewan River Basin | Red Deer Regional Planning Commission |
| 4. Athabasca River Basin | Provincial Planning Branch |
| 5. Smoky River Basin | Peace River Regional Planning Commission |

Land is now used in the Eastern Slopes or is proposed for use for such purposes as tourism, summer and winter recreation, urban development, forest utilization, mineral resource industries, surface mining, underground coal mining,

figure 1

**drainage basins**

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ALBERTA

oil and gas development, agriculture, watershed conservation, domestic water supplies, hydroelectric power developments, wildlife and fishery management, wilderness and natural areas, institutional use (charitable and religious groups), archaeological sites, research, etc.

These different present and potential uses of resources within the Eastern Slopes area may either have no effect on each other, complement each other, conflict with each other, or relate to each other in sequential ways.

Submissions on the different land uses and how the several uses might affect each other are invited from all sectors of the public including developers, industry, regional planning commissions, cities, municipalities, towns and improvement districts, Indian Bands, universities and other such agencies, associations, groups and interested individuals.

All submissions on land use and resource developments will be accepted and considered at these public hearings.

The purpose of the individual regional planning reports are to assess each study areas for its resource potential, considering the present and the projected demands on these resources, and to acquaint the public with this information. All Planning Commission reports and the Foothills Resource Allocation Study reports will be made available to the public prior to the hearings so that comments and briefs concerning them can be presented at the hearings.

Objectives

Through Public Hearings:

- To enquire into all potential uses of resources
- To formulate ways in which optimum benefits and environmental conservation can be achieved now and for the future from various resources
- To consider and evaluate the views of the public on specific recreational and tourist development proposals

- To lay the views presented to the Authority and the Authority's recommendations thereon before the Government of Alberta

It is hoped this project will provide the Government of Alberta with a design which will define the most beneficial use of all resources of the region in order that all the provincial agencies may program their activities about this plan.

# The Smoky River Drainage Basin

## Location

Map 2 indicates the location of the Smoky River Drainage Basin study area in relation to the Provinces of Alberta and British Columbia and the Northwest Territories.

The following table indicates how the area is located relatively:

| Approximate Aerial Distance in Miles to Grande Cache | |
|---|---|
| Grande Prairie | 85 |
| Peace River | 180 |
| Edmonton | 235 |
| Jasper | 85 |
| Fort St. John | 180 |
| Dawson Creek | 135 |
| Prince George | 140 |
| Vancouver | 360 |
| Yellowknife | 620 |

The Smoky River Basin for purposes of this study will include Willmore Wilderness Park (which is adjacent to Jasper National Park) to the south stretching northward almost to the Wapiti River. The British Columbia - Alberta boundary is the western limit while the area extends to the Simonette River district on the east. This is a very large area covering approximately 7,000 square miles.

## History

The Smoky River Basin was quite extensively travelled as a migration route by Indian people for many thousands of years after the ice ages. Later the land was visited by trappers and explorers. The earliest geological work done in the area was by G.M. Dawson who examined the lower part of the Wapiti River and Big Mountain Creek in 1879.

figure 2

**location of study area**

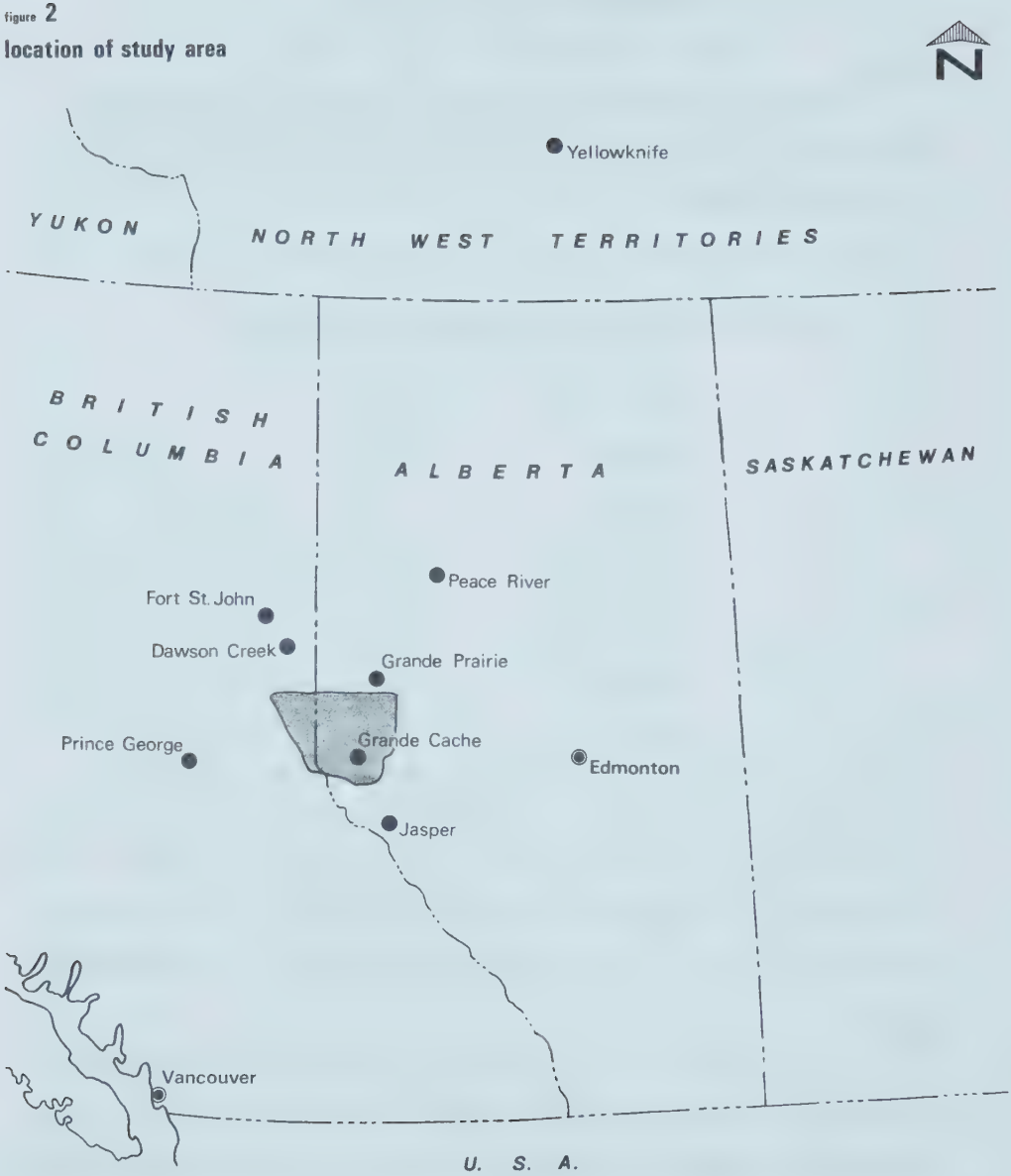
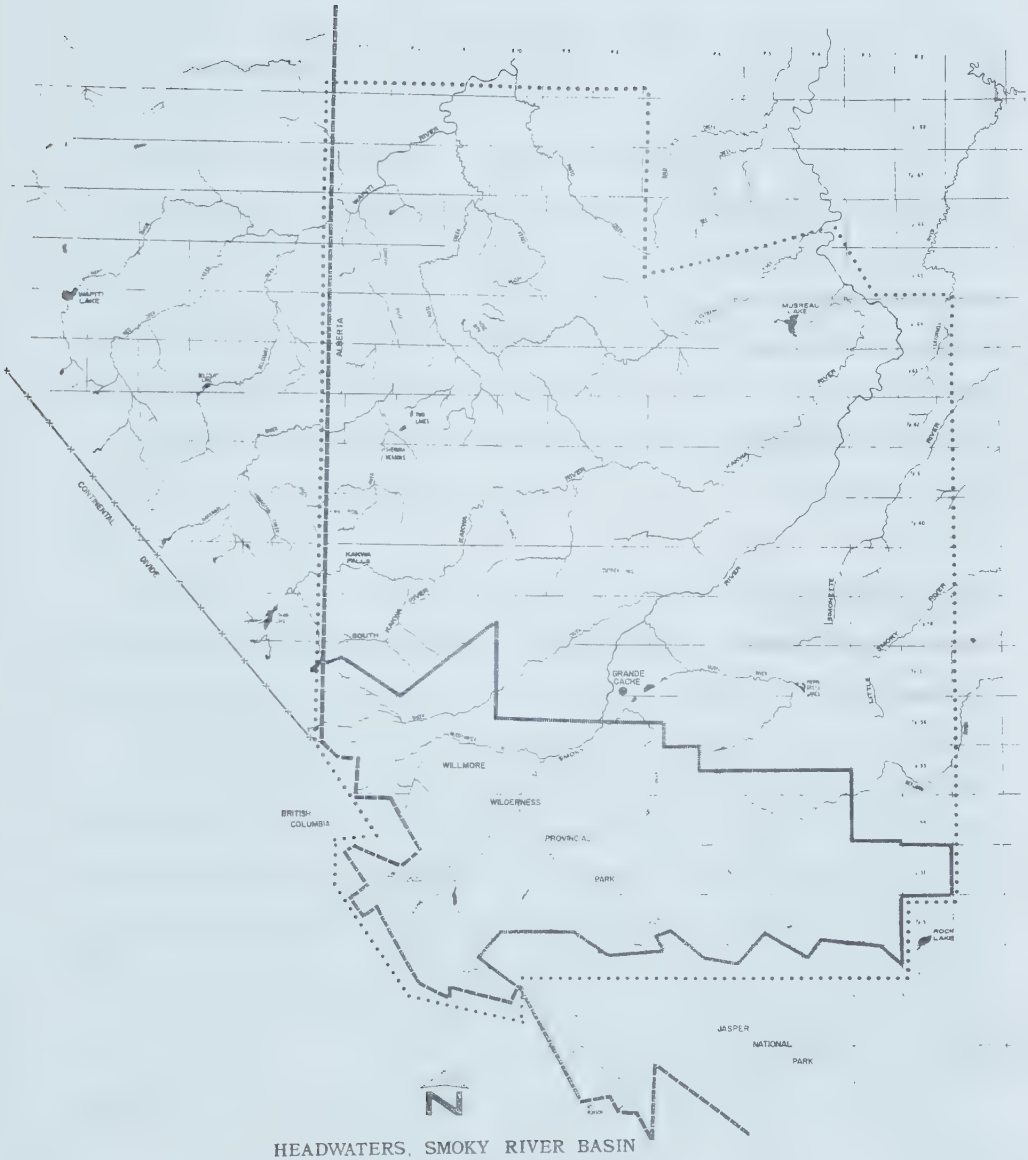


figure 3

1021-10

**headwaters, smoky river basin**




HEADWATERS, SMOKY RIVER BASIN

PEACE RIVER REGIONAL PLANNING COMMISSION

The Edson Trail, over which numerous settlers travelled on their way to the Peace River Country, lies in the eastern part of the study area. As the Peace River area became more settled guides and their clients and a few of the local population used the study area to the south for recreation and some employment through lumbering.

Until recently this area was considered by the general public as an unsettled area of bush in the western part of Alberta waiting for development.

Lumbering had been the most important and only industry for the study area until the early sixties when oil and gas exploration crews came. Coal mining interests then claimed parts of the study area for exploration purposes. In the seventies a pulp and paper company is preparing to start operations.

The area has been discovered and the industries are here. Provincial income from exploration rights and annual timber charges is a healthy part of the economy. The area is presently in a boom period.

Geology and Topography

The geology of the area resulted from the work of two continental ice sheets during the Pleistocene Epoch approximately 10,000 years ago. The first to affect the area was the Cordilleran ice sheet that advanced northeastward through the mountain valleys onto the plains. The Keewatin continental ice sheet advanced south and west and the meeting of these ice sheets collectively laid down a conglomerate of glacial deposits, that vary throughout the study area, consisting of sorted and unassorted clays, sands, pebbles and boulders.

The present day terrain elevation of the area declines from approximately 8,000 feet above sea level in the southwest to approximately 2,300 feet in the Wapiti Plain in the north and east.

The western Alberta plains comprising the largest portion of the area is of rolling topography with northeasterly flowing primary streams which are deeply incised and separated by high ridges of land oriented and lowering in elevation in the same directions as the streams. North and south flowing secondary drainage patterns cut into the land ridges allowing possible access into the primary stream valleys.

The northern portion of the area, the Wapiti Plain, is gently rolling in the south and level in the north. The northern portion contains large areas of vegetationally stabilized sand dunes developed through wind erosion of lacustrine (water deposited) materials. For the most part the land is spotted with muskeg.

Post glacial stream deposits of granular material have also been deposited in the valleys of existing streams.

Soils

Gleysolic soils are fairly common at lower elevations. These soils are found in areas of poor drainage and are characterized by a thin accumulation of peat at the surface.

Organic soils occupy a significant proportion of the poorly drained areas. These soils have more than 12" of peat at the surface. There are two types of these soils found, differing only in origin and texture. They are the sedge type, made up of sedge and grasses forming relatively fine fibrous peat, and the moss type, made up entirely of sphagnum moss and more coarsely textured. The latter type is the true muskeg.

The organic soils of the area are frozen to a depth of 20" to 24" in early May. This frozen layer generally recedes with the warmer temperatures of late spring and early summer and by late July the frozen layer usually disappears.

However, farther to the north, near the northern boundary of the study area, the permafrost persists in some instances throughout the summer months and has been found in moss bogs in the vicinity of Wapiti Post Office in early September.

The most commonly occurring soil in the study area is a grey wooded soil developed from glacial till. These soils are typified by a leached horizon at the surface that is underlain by a horizon of accumulated clay. The depth to lime carbonate varies considerably in this region, but on the average appears to be encountered at about 36" from the surface.

Soils developed from sandstone are found in hilly areas at higher elevations where bedrock occurs near the surface. These soils vary considerably in degrees of development ranging from grey wooded to podzol. Generally from an agricultural standpoint the soil is of poor quality.

Forest

Natural tree cover is present over the entire area, except at barren higher elevations of the mountains. Outcropping rock is common above the tree line and tundralike alpine meadows are present on the more favourable sites. In the southeastern foothills lumbering has removed much of the timber.

alpine meadow at torrens lookout

White spruce and lodgepole pine dominate the coniferous forest on the untouched hills, whereas jackpine occur in the sandy or gravelly zones and may also be mixed with trembling aspen along streams. As elevations decrease towards the north, trembling aspen penetrates the coniferous forest and dominates on the lower foothills and plains. Where drainage is poor, such as in the northeast and on the tablelands of the east, muskegs characterized by black spruce, willow and labrador tea are prevalent. On poorly drained soils, sedges, marsh and bluejoint reedgrasses, birches and willows comprise the characteristic vegetation. Vegetative cover is a factor of soil formation and provides some information for differentiating soil drainage and texture within an area. Therefore, the major portion of mineral soil has the mixed cover of aspen, white spruce and jackpine while on the porous sandy soils the jackpine dominates and on the finer textured soils the white spruce predominates.

Climate

Grande Prairie, the nearest meteorlogical station, has a January mean temperature of 3.1$^{o}$F and a July mean temperature of 60.3$^{o}$F; however, the climate of Grande Prairie is more extreme than that of the study area to the south. The climate of this area is more moderate than the prairies because of the influence of the mountains and the chinook winds. Winters are long and cold and summers are short and cool. The mean temperatures here for January and July are likely 10$^{o}$F to 60$^{o}$F respectively. Annual precipitation ranges from 15 to 20 inches at the lower elevations to over 30 inches at the higher elevations where much of the precipitation falls as snow. In the extreme southwest, annual precipitation is over 50 inches at the very highest elevations west of the Continental Divide.

Minerals

Oil and Gas

The southwest part of the study area in particular is relatively unexplored mainly due to the lack of access and because the depths required to explore potential oil and gas producing formations are great.

The Research Council of Alberta, Geology Division, says in a report prepared for the Department of Highways and Transport:

"However, it is considered that the oil and gas potential of the area is good - especially the potential for "sour" gas ..... and it appears likely that exploration activity will continue at a high rate for some time to come."

Coal

The Research Council states that:

"Two general types of coal are abundant in the map area: bituminous (coking) coal and subbituminous coal.

Bituminous coal is confined to the lower Cretaceous strata of the "inner" foothills, in the extreme southwest corner of the map area. Large reserves apparently are present in a zone that continues northwest from the present site of the McIntyre-Porcupine operation on the Smoky River, across the Kakwa River into British Columbia. Estimates of these reserves range from 250 to 500 million tons.

Subbituminous coal is widespread in the Upper Cretaceous strata in the west central and northern part of the map area. These non-coking low grade coals are unlikely to be mined in the near future."

Metallic Minerals

The Research Council states that:

"No known deposits of metallic minerals are present in the area, and it is unlikely that such deposits (iron, lead, zinc, gold, etc.) will be found. The possible exception is uranium, for which some prospecting has been done in recent years. However, to date no bona fide uranium showings have been confirmed, and present knowledge suggests that discovery of a major uranium deposit within the area is unlikely, if not improbable."

Industrial Minerals

Of the industrial minerals such as limestone, gypsum salt, phosphate rock, glass sand, bentonite, clay, shale and gravel, only sand and gravel bentonite, and possibly certain types of clays and shales, are known to be present. There is mention of some gypsum in the extreme southwest. None of these deposits except sand and gravel has any real commercial value at the present time owing to their distance from market and presence of similar deposits in other areas closer to market. There does appear to be more than adequate sand and gravel deposits available for highway construction purposes in the northern and western parts of the study area, but availability of construction material in the more central and southern parts is definitely low. Some fill material for roads in this area have been supplied from stream beds.

This section on Minerals is taken largely from -

Route Study, Grande Cache - Grande Prairie Highway, Department of Highways and Transport, Planning Branch, May 1972, P.9-12.

Water

A renewable resource which is becoming increasingly significant in the North American context, particularly in light of suggestions of massive inter-basin diversion schemes, is the Peace River Region's fresh water.

"Approximately 55 million acre-feet of fresh water were leaving the region each year in the Peace River alone, prior to the W.A.C. Bennett dam at Hudson Hope, British Columbia. Now the river flow is down to only 32 million acre-feet." (Webster, D.R., Preliminary Regional Plan (unpublished))

Reference to map #4 shows the relative magnitudes of Alberta's river discharges. From the relative size of the Peace River system the importance

figure **4**

**relative magnitudes of mean river discharges**

SOURCE
NEILL, C.R., et al
'Selected Characteristics of Stream Flow in Alberta'
Edmonton, 1970

of water power potential is obvious. However, the slumping potential of the valley walls of most of the primary and some of the secondary streams is extremely high throughout the entire area. Due to this fact of poor foundation conditions, the development of this water potential is highly unlikely.

The sensitivity of watersheds in the study area is very great due to high annual precipitation and the fact that the watersheds are small, more compact and express changes in water production (quantity and quality) very quickly. This is evidenced by the flood of June 1972. The farther southwest and therefore higher one travels, the greater the climatic extremes there are influencing these watersheds and the greater the time required for adjustments to changes and disturbances.

The continental divide forms the southwest study area boundary and continues northwest into British Columbia. This divide, being the high point of elevation, is the split between the Arctic and Pacific river systems.

Many important headwaters are in the area with others just to the west and south of this area. Since the extreme headwaters are fed by glaciers and icefields, the rivers are assured of a year around flow of water. This is especially important in the dry summer periods when domestic demands are highest.

The headwaters of the Smoky River is just to the south of the study area, originating in Jasper National Park, on Mt. Robson. The Wapiti River flows into the Smoky River, which in turn runs into the Peace River system. Both the Wapiti and Peace Rivers originate in British Columbia.

Due to the Alberta-British Columbia boundary not following the natural boundary (the continental divide) and the sensitive headwaters being largely outside this study area, and the possibility of water power potential being developed, the region is not in a healthy or enviable position with regard to downstream water rights.

Fish and Wildlife

The study area abounds in upland wildlife. A variety of species are present, including mountain sheep, mountain goat, moose, elk, deer, caribou, black and grizzly bear.

At present there seems to be some depletion of the big game potential as mountain goat, caribou and grizzly bear are becoming increasingly harder to find. This is due largely to the fact that resource exploration has made the area accessible to the hunting public.

seismic cut lines
near chinook ridge

The area has prime grazing range for many of these animals. In fact the study area contains two key winter ranges for Rocky Mountain Caribou which are among the last available areas in Alberta for this species.

Many of these species are considered "climax" animals. They are very sensitive to human activities and tend to disappear from areas of development. Even the increased air traffic over the area has affected game population.

figure 5

## key winter range

HEADWATERS, SMOKY RIVER BASIN

PEACE RIVER REGIONAL PLANNING COMMISSION

Sheep, goat, caribou and grizzly bear will very soon need a protective status if indeed they are to be protected.

Angling is very good in the area. The light usage, caused by poor accessibility in much of the area, has maintained this potential. Good stocks of native sport fish, such as Dolly Varden, Arctic Grayling and Rocky Mountain Whitefish inhabit most streams, except for a few small organic creeks in the north. Rainbow Trout have been stocked in Two Lakes and Cutthroat Trout stocked in the Torrens River system. Fish populations are directly related to watershed conditions. Erosion from road cuts increase the stream sediment load. Revegetation stabilized the slopes and decreases these stream sedimentations, increasing water quality and sport fish productivity. Therefore, vegetation cover and soil condition is very important.

Timber Operations

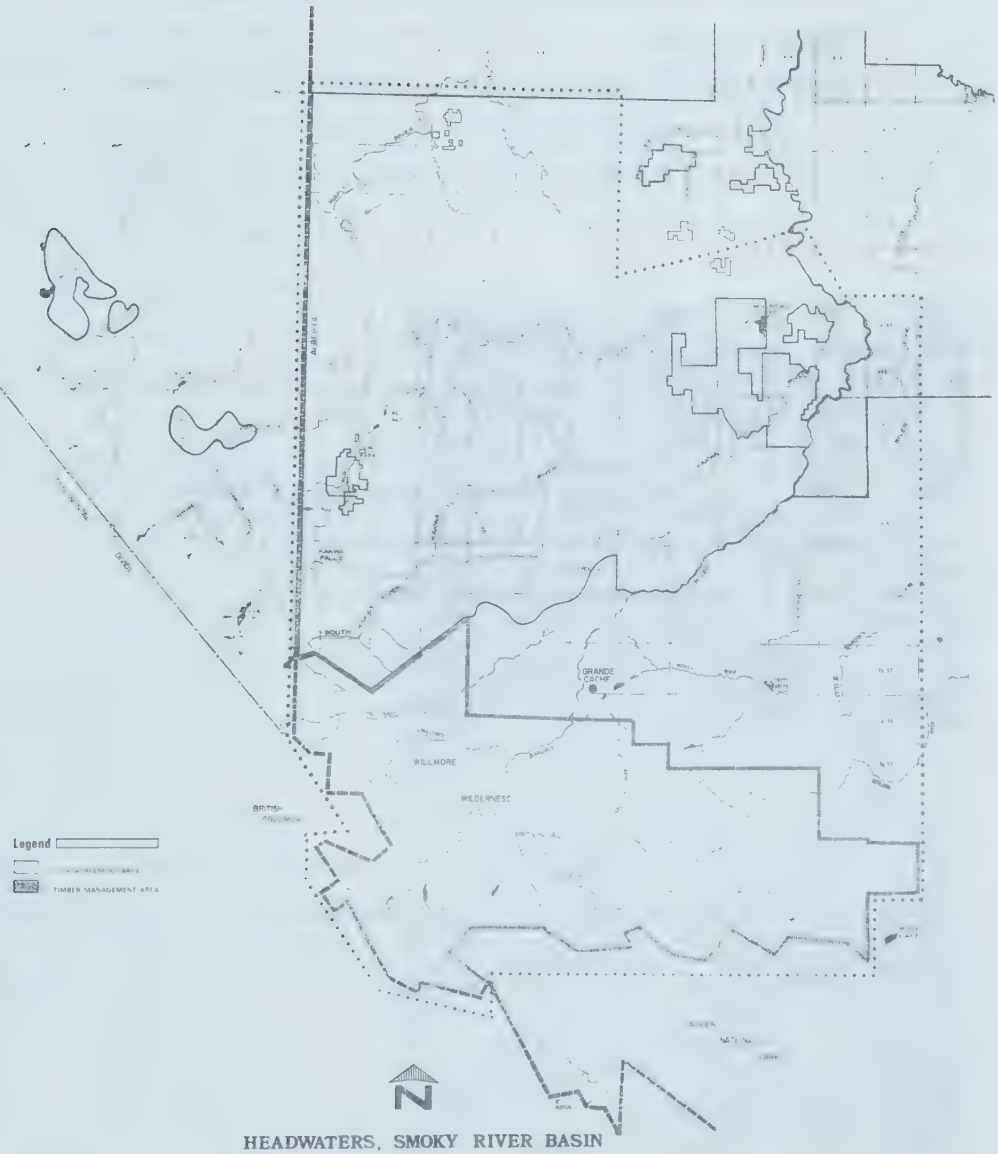
Forestry is the major resource at the present time and there are three main companies with operations in the study area. They are as follows:

A. Procter and Gamble Cellulose, presently constructing a pulp mill near Grande Prairie and holding large pulp leases in the study area.

procter and gamble pulp mill

figure 6

## forest management areas




HEADWATERS, SMOKY RIVER BASIN

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B. Imperial Lumber Co. Ltd., presently operating a planer mill in Grande Prairie and contracting with sawmills at Grovedale and Sherman Meadows.

C. North Canadian Forest Industries, operating a sawmill, planer mill and plywood manufacturing plant in Grande Prairie; as well as a sawmill at Hines Creek and operations at Chetwynd, British Columbia.

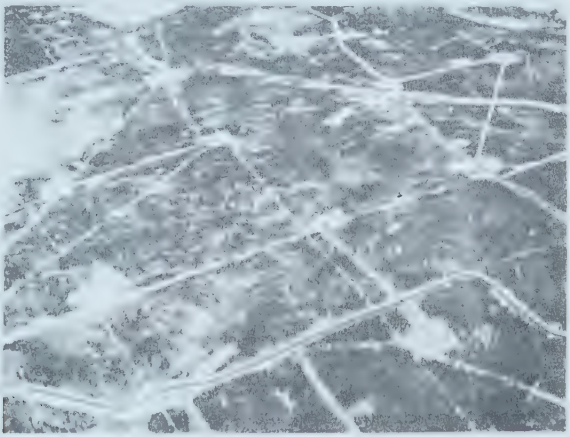
clear cutting blocks

These companies' operations are all predicted on a perpetual yield basis and each company at present has a haul road system that is essentially separate from the others, although there are certain cases where they may share sections of road.

The Grande Prairie Regional College, in conjunction with the local timber industries, offers a timber management course at Musreau Lake. This course deals with all aspects of the trade from selecting and cutting, to hauling. The produced timber is sold locally. Approximately five instructors and twenty students are involved. The students are clearing a proposed recreational site on Musreau Lake working closely with the Alberta Forest Service, Grande Prairie.

Drilling Operations

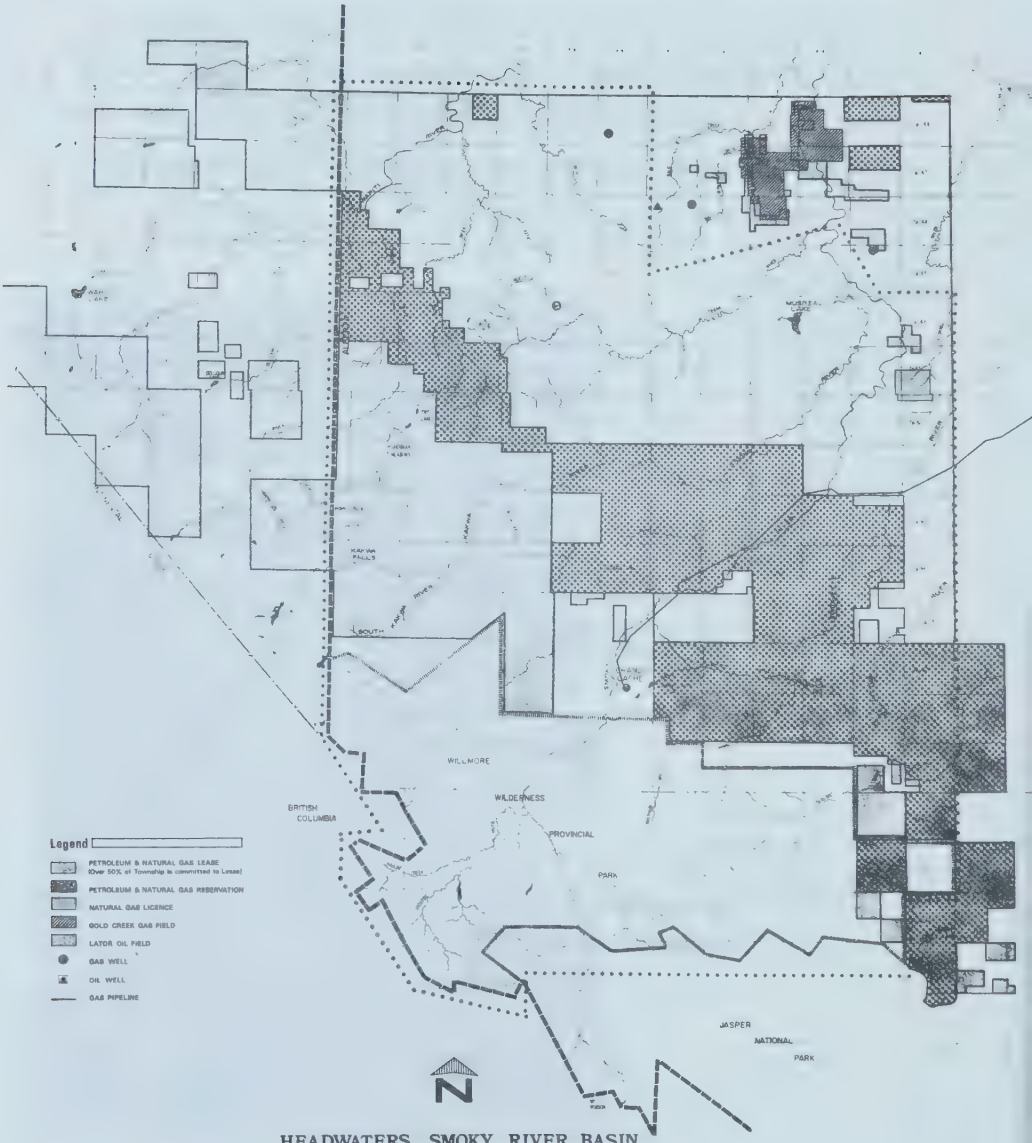
Atlantic Richfield Co. Ltd. operates the Gold Creek Gas field and sulphur plant to the north of the study area approximately 25 miles south of Grande Prairie. This is the only producing gas field west of the Smoky River. It produces sour gas and the liquids are transported out by pipeline while the sulphur is hauled by train via the Alberta Resources Railway. To the east of the study area are the Simonette Oil field and the Berland River Gas field. Within the study area itself there are no known finds of oil or gas at present, however exploration is continuing.



gas and oil exploration

figure 7

## extent of oil and gas leases




HEADWATERS, SMOKY RIVER BASIN

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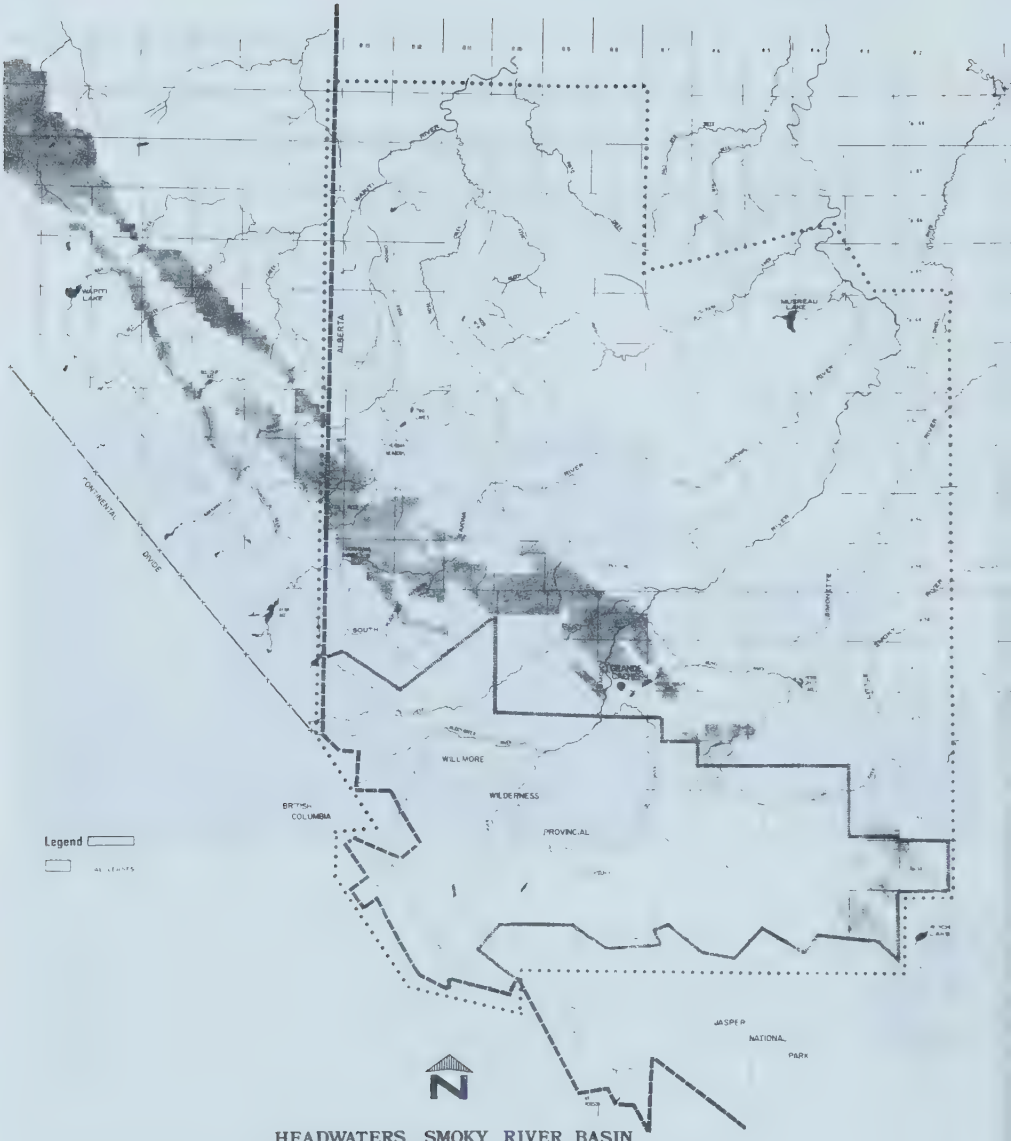
Mining Operations

McIntyre Porcupine Coal Mines Ltd. operates coal mines in the south of the area on the Smoky River just north of Grande Cache. At present McIntyre has only two mines operating. No. 2 is an underground mine while No. 8 is an open pit or strip mine. No. 5 was closed in January as the operation was deemed too expensive. Now McIntyre Porcupine has a proposal for a No. 9 mine located on Sheep Creek (Twp. 58, Rge. 8 & 9, W6) just north of the present operations.

mcintyre porcupine coal mine

figure 8

## coal leases




HEADWATERS, SMOKY RIVER BASIN

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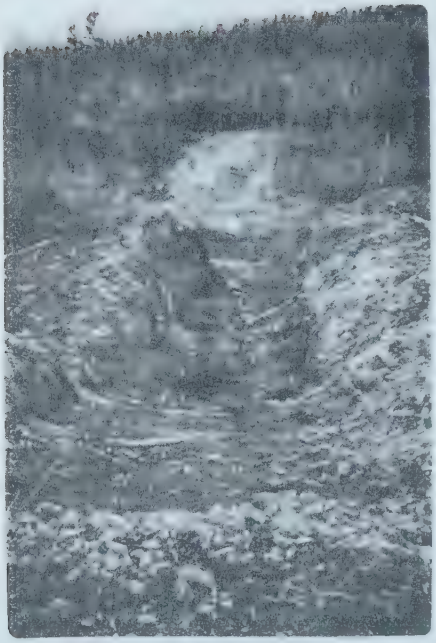
Located beside the McIntyre Porcupine mining operation is Alberta Power's 150,000 kilowatt H.R. Milner generating station. The power plant uses middling coal, a by-product of the coal mine, as its source of fuel.

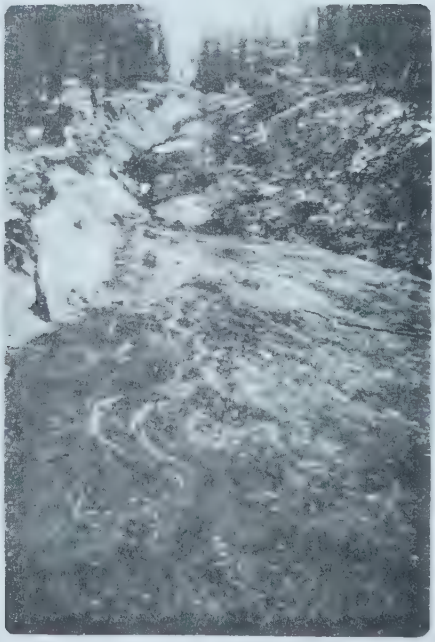
There are also various other coal mining interests in the study area including Denison Mines, Consolidation Coal Company, Kakwa Mining Company and Woods Petroleum.

Notus Exploration, the exploration division of Cyprus Mining, in conjunction with Kakwa Mining who hold the lease, is currently exploring Horn Ridge (Twp. 60, Rge. 13, W6) for a potential mine site (1980).

horn ridge



**exploration for coal**
(some trenches are 40 to 50 feet deep)



**erosion from coal exploration**
(sludge is incapable of plant growth of any kind)

Agriculture

There is very little farming done in the Smoky Basin area and there is little potential of any further clearing for farm land. Farming in its present sense is usually implied applicable only to areas below the 3,000 foot contour level. This limit is reached by factors of soil types, limited frost free period and other climatic conditions. If this limit is applied to the study area, it virtually eliminates over half of the area.

The land remaining is too steeply sloping, has excessive stoniness (rough moraines made up of gravel), is deeply leached and quite infertile. The area has wind blown sand deposits (dunes) together with bogs and muskeg.

Some of the river terraces have a potentially moderate agriculture rating but due to immature soils from periodic flooding, it does seem doubtful that they will be farmed in the near future.

There is some mixed farming done along the Wapiti River with some homesteading, but the land is considered more useful for pasture and woodlots. At the moment several large grazing leases are found on the northern and eastern fringes of the study area. However, the production of grass and hay is only moderate. Therefore, agriculture in the study area is of very little importance and probably will remain so.

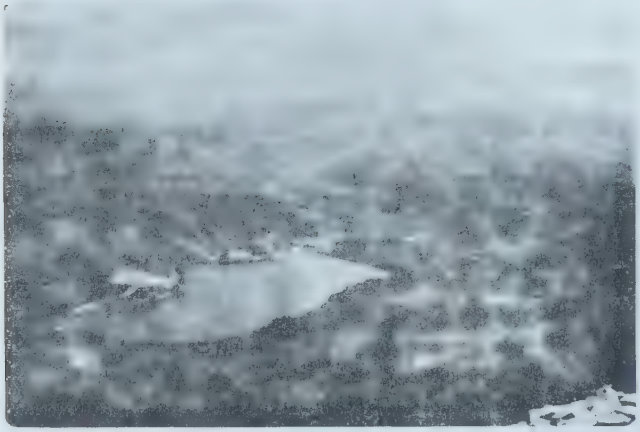
Recreation

The high foothills and low mountains of the study area in particular are scenic and only the extreme northern part is flat, with less recreational potential. A few shoreland units are present on Two Lakes, Musreau Lake, the Wapiti River and the Smoky River below its confluence with the Kakwa River.

The broad Smoky River valley provides greater accessibility and camping potential and has a more usable backshore than the narrow, steep-sloped valley

of the Wapiti River. Both the Wapiti and Smoky Rivers can support boating but are not especially suitable for this activity due to rapids. Many local inhabitants do enjoy boating in river boats equipped with jet engines that have a very shallow draught. Because the river banks are incised, they are quite picturesque. The potential for canoeing and angling is very good.

Musreau Lake is suitable only for boating, angling and some cottages or camping. Much of the shoreland is muskeg, the water is organic and algae bloom is prevalent. Two Lakes has no beaches, but its good camping and angling and picturesque setting combine to give it a high capability for recreation. Two Lakes also offers a view of distant snow covered mountain peaks.



**the south lake of two lakes**
(plugged oilwell site on middle right side of photograph has subjected lake to some pollution)

Boating is restricted by the size and location of the various lakes. The following is a list of the lakes in the study area affected by boating regulations:

Water Restriction Regulations

Waters on which power-driven vessels are prohibited except with the authority of the Federal Minister of Transport.

Nose Lake

Twp. 64, Rge 11., W6 — 45 miles southwest of Grande Prairie

Donald Lake

Twp. 58, Rge. 1, W6 — 45 miles east of Grande Cache

Joachim Lakes

Twp. 57, Rge. 3, W6 — 30 miles east of Grande Cache

Victor Lake

Twp. 56, Rge. 8, W6 — southwest of Grande Cache

Pierre Greys Lakes

Twp. 57, Rge. 4, W6 — 25 miles east of Grande Cache

Waters on which power-driven vessels are subject to a maximum speed limit (8 mph).

Two Lakes

Twp. 62, Rge. 12, W6 — 100 miles southwest of Grande Prairie

A la Peche Lake

Twp. 55, Rge. 6, W6 — 14 miles southeast of Grande Cache

The total study area is especially suitable for extensive forms of recreation, such as hunting, fishing, camping, canoeing, viewing, hiking, trail riding, cross country skiing, and nature study. The scenic setting, streams, and topographic diversity ranging from forest to alpine tundra contribute to the recreational potential. The streams in the mountains and high foothills have the highest recreational potential in the uplands and are suitable for camping, viewing and angling. Intensive recreation could wipe out some of these spots in two years. The Smoky, Narraway, Simonette and

Kakwa Rivers are large enough to have a good capability for canoeing.

In the southwestern part of the area, Willmore Wilderness Park is a haven for the naturalist. The rugged topography, drainage dissection and high peaks provide outstanding scenery. To preserve the park, no motor vehicles are allowed in. There are few facilities for the trail rider, fisherman, hunter, and nature lover. The Department of Lands and Forests maintains several cabins, towers, and trails throughout the park. The Willmore Wilderness Park Act (R.S.A. 1970, Chapter 392) states:

> "4. The Park is dedicated to the use of the people of Alberta for their benefit, education and enjoyment, subject to this Act and the regulations, and shall, by the management, conservation and protection of its natural resources and by the preservation of its natural beauty, be maintained for the enjoyment of future generations. (1959, c. 95, s. 4)"

However, the Act also states:

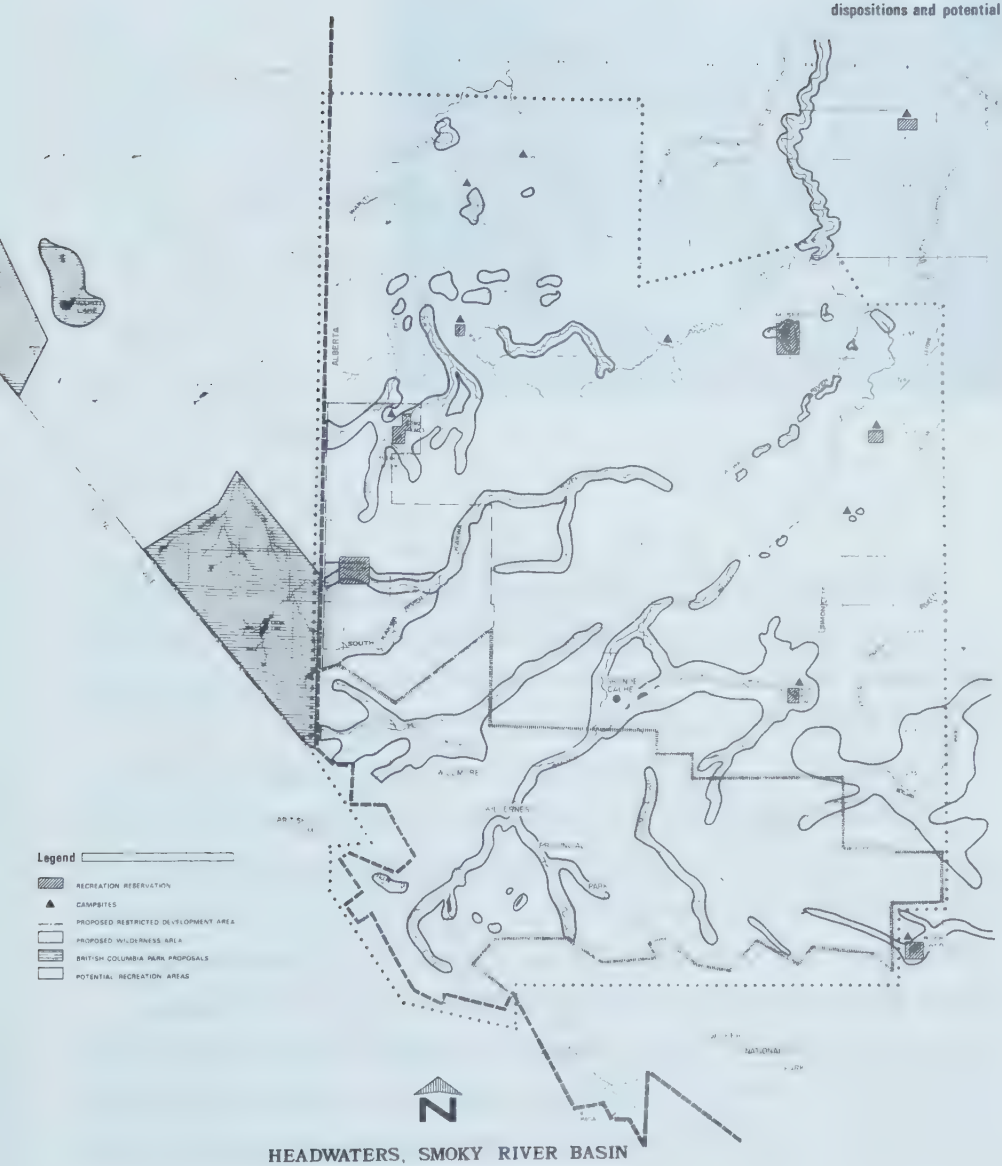
> "7. Nothing in this Act affects the administration and control of mines and minerals within the area of the Park. (1959, c.95, s.7)"

This means that the Department of Mines and Minerals has power to override the original purpose of the wilderness park. Under pressure of development the boundaries of Willmore have changed several times and the sanctity of the wilderness violated.

figure 9

## recreation

dispositions and potential




HEADWATERS, SMOKY RIVER BASIN

PEACE RIVER REGIONAL PLANNING COMMISSION

kakwa falls

North of Willmore, the Kakwa Falls have excellent capability for recreation, viewing and fishing. These spectacular falls, which plunge over 100 feet into the gorge below, are the focus point for the Kakwa Natural Area of approximately 4 square miles set up by the Provincial Government.

Meanwhile, the Wild Kakwa Society, a local conservation group, proposes a total wilderness area within the triangle formed by the Kakwa and the South Kakwa Rivers (less than 100 square miles) surrounded by an area of 20 townships to be restrictive development and to act as a buffer zone. This buffer zone would in effect regulate development on the fringes of the wilderness by controlling the types of resource extraction industries allowed here. Provisions for a Provincial Park could also be made near the falls. This would provide access to the falls but very limited access beyond, into the wilderness. This proposal has been pushed for several years and has the support of 10,000 residents.

kakwa falls

This is one of the very few areas suitably located to the populated Alberta and British Columbia Peace River Regions which offers outstanding scenery comparable to the Rocky Mountain National Parks.

There are several campsites in the study area. Several trail riding and guiding organizations offer trips over various routes. Charter flights are available over the area and there has been mention of offering sightseeing trips on the Alberta Resources Railway. There are also several fine viewing spots on the Hinton - Goodwin road and at Chinook Ridge on the Two Lakes Forestry road.

The total recreation capability of the study area is high but the recreation activities are extensive types. That is, the area has very high potential for recreational purposes but these outdoor activities cannot support high numbers of people at the same place, at the same time without some serious

effect to the landscape or total environment.

## Transportation

### Roads

The existing roads in this area are a combination of Forestry access roads and petroleum and lumber company private roads usually held under a License of Occupation.

The most direct road connection between Grande Cache and Grande Prairie at the present is via the Forestry Trunk Road from Muskeg to just north of Kar Lake and then on a combination of North Canadian Forest Industries and Imperial Lumber Company roads that connect from the Trunk Road across the Smoky River to south of Grande Prairie.

The distance from Grande Prairie to Muskeg via this route is approximately 124 miles as compared to approximately 145 miles via the Trunk Road to Goodwin then on Highway 34 to Grande Prairie.

Access to the western part of the study area is by the Two Lakes and Kakwa Tower Forestry Road.

A fairly comprehensive system of forest product haul roads into the north central part of the area has been developed by North Canadian Forest Industries Ltd., Imperial Lumber Co. and lately Procter and Gamble Cellulose Ltd. These roads are being extended to new areas each year.

The Procter and Gamble road system is being constructed to an all-weather standard while some of the other two companies' roads are constructed for winter use only.

The Department of Highways and Transport maintain some local roads in the Grovedale - Wapiti area for access to the farmers in the relatively small settled area just south of the Wapiti River.

The Department is also constructing a new high standard road from Grande Prairie south across the Wapiti River, which included a new bridge over the Wapiti River. This road will form the north section of the proposed Grande Cache - Grande Prairie highway. The southern part of this highway from Grande Cache to Hinton has also been basically constructed but not fully completed.

There are also numerous bush roads, trails and cutlines that are used by hunters and fishermen within the interior of the area.

Rail

The Alberta Resources Railway linking Grande Cache to Grande Prairie is the only railway in the area. This line has links to the Procter and Gamble Pulp Mill, Richfield Gas plant and McIntyre - Porcupine Coal Mine. At the moment the line is inoperable due to 35 miles of washout which occurred during the spring run-off in 1972 but preparations for repair in 1973 are in the process.

Pipelines

There are several underground oil and gas pipelines running across the area.

Air

There are numerous small strips maintained for forestry towers and access to the area by the Department of Lands and Forests.

Water

There is no development of commercial water transportation at present and there is none expected. The river valleys are not feasible for this use.

At the moment they are used strictly by outdoorsmen for recreation purposes.

Settlement

At present the Town of Grande Cache (population approximately 3,000) at the southern edge and the City of Grande Prairie (population 14,739) to the north, are the only two major centers near the study area. As a result of McIntyre - Porcupine Mines Limited closing down the #5 mine and laying off approximately 150 miners, the population of Grande Cache has dropped by approximately 500 in the last couple of months. This situation may change if and when McIntyre - Porcupine open up the #9 strip mine.

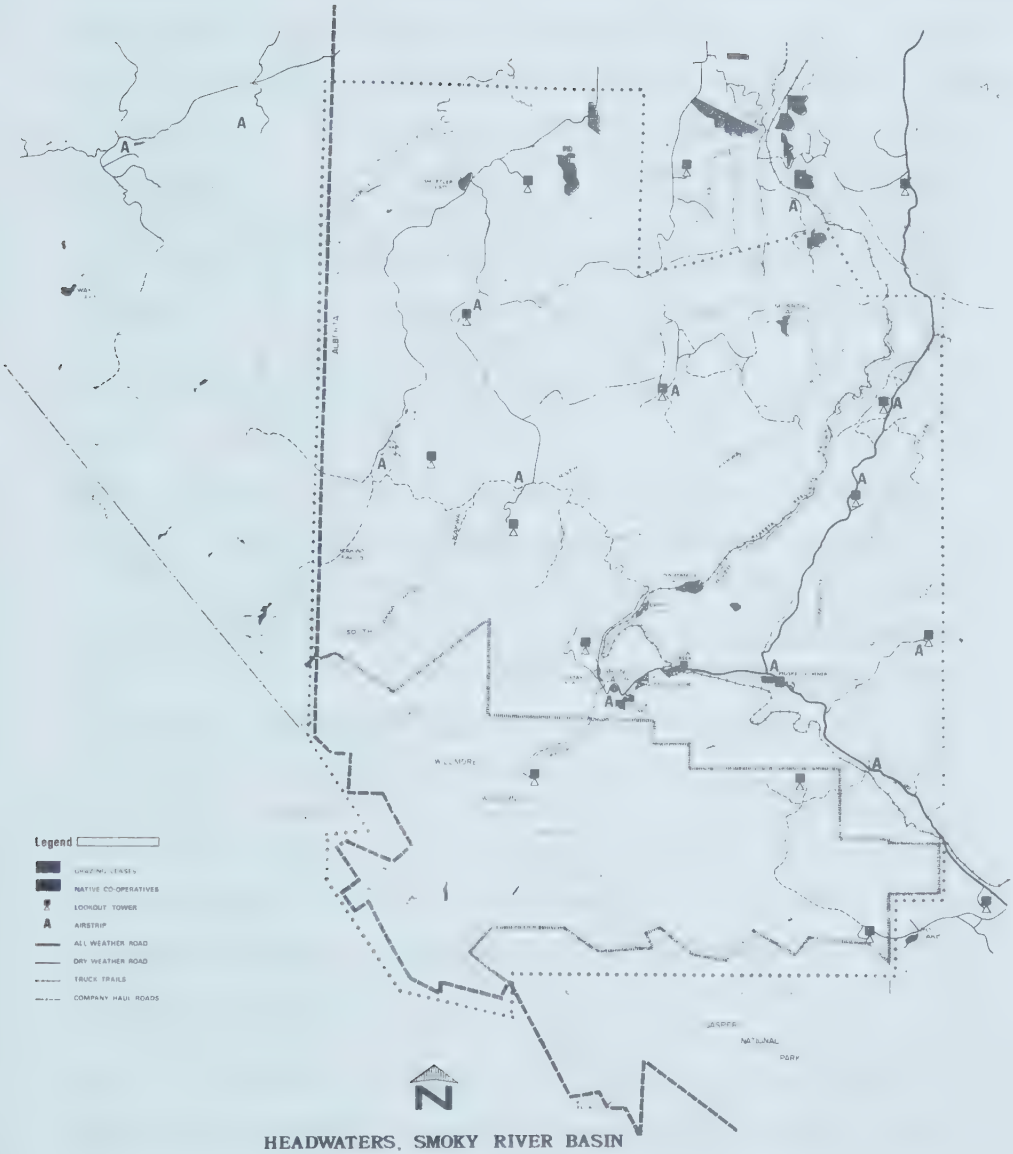
A narrow band of agricultural settlement and homesteads extends along the extreme northwest adjacent to the Wapiti River that probably will not enlarge to any great extent due to the limited area of arable land available and the economics involved in farming or homesteading.

The native people use the land for hunting, trapping, horse range, camping and just basically enjoying it. Several small settlements of these people are present at Muskeg Corner, Susa Creek, Daniel Flats, Victor Lake, Grande Cache Lake and Shuttler Flats. Northlands School Division #61 operates two schools in the area at Nose Creek and Kakwa. These schools have thirteen and twenty-two students respectively with most of the work done through correspondence. Forestry towers and cabins are scattered throughout the entire study area. A few people are also located at sawmills and other camps.

Therefore, the bulk of the present population of the area is concentrated on the fringes and it is very unlikely that this distribution will change in the near future.

figure 10

## transportation and settlement




HEADWATERS, SMOKY RIVER BASIN

PEACE RIVER REGIONAL PLANNING COMMISSION

Discussion

The Indians were the first inhabitants of this land. To them the land meant life. Life was all important, so the land was worshipped. The early settlers, as well, had a deep appreciation for nature. But they were determined to subjugate it to their control in order to gain a living from the land. To the early settler, the landscape had to be revered because it was the direct source of his livelihood.

Things have changed since that period. Man now has tools that so extend his power that any attempts to subjugate the land for profit can do irreparable damage. In other words, man's desires have not changed much, but his abilities to wreak havoc have so changed that he must go through a period of value transition.

The economy is almost entirely dependent on resource exploitive activities and secondary processing. If too much dependence is placed on short-term extraction and exports of non-renewable resources such as petroleum and natural gas, the eventual exhaustion of such resources may bring about severe economic hardships and unemployment in the Peace region.

The environmental and ecological effects of such primary activities as timber harvesting and fossil fuel extraction may be very costly, in terms of quality of life, for regional residents.

The landscape is being developed not to secure a living for local inhabitants but to feed industrial processes and eventually consumer demands outside the region. Diversification of economy via installation of resource processing plants may only lead to further deterioration in the environmental quality of the area.

Yet the people are afraid their children will leave the region. The development of resources could create jobs - both unskilled and skilled. This

would give people a reason to stay within the region or return after further education. With development and jobs, money comes into the region and the financial situation is such that it could always be better.

But then again, the youth are relating more to the natural environment wanting more and more outdoor recreation as an escape or change from the modern urban environment. The lack of recreational areas and facilities is a definite influence on the staying or leaving of these people. They must have somewhere to recreate! At the moment most young people are here only for the money they can make. They then leave the area to enjoy the good life their earnings can buy elsewhere.

This then is the challenge of the entire Peace region. It is an area with mineral and timber resources. But it is also an area that only a few years ago contained numerous wildlife. It is an area settled by some people who desired solitude, peace, refuge and did not want to be part of the mainstream.

There are obviously numerous paths that the area can take. One would be wholesale exploration of all its resources with resulting urbanization, pipelines, roads and eradication of most wilderness areas. Or on the other hand, it could develop into one large wilderness park except for settlement which currently exists. A middle course might be based on restricted growth. Resource development would only be permitted when ecologically sound and when full benefits would accure to the region (that is, local or Canadian capital would be involved and considerable processing would occur in the region).

These three possible futures are outlined on the following pages. The advantages and disadvantages of each model of development are outlined as well as the characteristics of each type of growth. In addition, the reasons why each model of development could occur are outlined. These three models are directly from Webster, D.R., Preliminary Regional Plan (unpublished).

The Wholesale Exploitation Model

Characteristics:

- Immediate extraction of valuable materials
- Large population increases especially during the exploration stages
- Heavy involvement of multi-national corporations
- Heavy in-migration of professional people from outside the region
- Heavy construction of infrastructure: e.g. roads, railraods, power facilities

Advantages:

- Maximizes the gross regional product
- Provides jobs for local people: primarily of an unskilled nature
- Improves accessibility and contact with outside world
- Provides income from resources now rather than in the future
- Creates a new social structure in the region

Disadvantages:

- Severe ecological damage
- Income flows now are at the expense of future generations
- Disrupts the way of life of indigenous peoples and others who have settled here desiring solitude
- Creates boom town and ghost town situations in some cases
- Non-Canadian ownership is usually involved
- Most products from the raw materials aren't manufactured here so that the bulk of profits accrue to other regions
- Rapid growth waves are formed creating regional inflation, housing shortages, service shortages, etc.
- Rapid growth tends to borrow from more developed regions in terms of structures, etc. rather than allowing the local culture to evolve their own landscapes

- Often makes distribution of incomes more disequitable and severely penalizes those on fixed incomes
- Provides a situation for corporate retailers to replace local merchants

Reasons for Occurrence:

- Those who occupy major decision-making posts (e.g. Chambers of Commerce, local politicians) have the most to gain from such models of development
- The Provincial Government earns large royalties from such developments
- Residents of Frontier regions live in isolated areas which are widely separated from each other and thus find it difficult to organize to oppose such development
- Residents of the region are less experienced than residents of other regions in the province and thus often do not understand the proper channels of opposition
- In the past, projects have not been debated locally to any extent before being located here
- If other alternatives are not forthcoming, residents have no choice but to accept such a model of development
- The public has not been fully informed concerning the consequences of such models of development

The Wilderness Model

Characteristics:

- No additional resource development
- Slow population growth based on natural growth (minus net out-migration plus those who choose to live here to experience the wilderness having their own incomes or entrepreneural schemes that do not involve resource exploitation
- Settlements will grow slowly
- The Gross Regional Product will not expand rapidly
- Retention of large amounts of landscape in its natural state
- A minimum of outside influence determining the course of the region

- Limited In-migration
- Little additional construction of infrastructure

Advantages:

- More equitable distribution of incomes
- Non-disturbance of the traditional ways of life of the Indian and Metis peoples
- Highly ecologically sound
- Provides option of income flows to the region (probably of a much higher value) at a later date
- Provides option of building resource-processing complexes with Canadian capital at a later date yielding much higher returns to the region than currently are occurring or would occur with the wholesale exploitive model
- Maintains present social structure
- Avoids Boom-Ghost Town phenomenon
- Minimizes Regional Inflation, housing shortages, servicing shortages
- Enables the Human Landscape (geography) to evolve slowly and hence more in harmony with the natural environment
- Minimizes the need for Foreign capital and hence Foreign control of the major economic processes
- Does not penalize those on fixed incomes
- Maintains the local merchant pattern

Disadvantages:

- Does not maximize the gross regional product at present
- Does not maximize the size of the population
- Results in lower incomes for those in the upper strata
- Does not maximize the size of the local market

- Does not provide income from resources now
- Does not develop the infrastructure
- Out-migration of young people may be high, particularly those who obtain an advanced education
- It requires considerable energy to maintain such a path of development because the economic system operating in North America heavily stacks the odds against it
- May antagonize certain corporations and government agencies operating outside the region

Reasons for Occurrence:

- The people would have to organize and demand an end to certain types of development
- The Provincial and Federal Governments would have to be convinced of the long-term utility of such a path of development
- Administrative mechanisms would have to be created to prevent certain types of development from occurring
- The people would have to have decided that the quality of life and the quality of the landscape are more important than the Gross Regional Product

The Middle-Road Model

Characteristics:

- Resource development occurs only when it is judged to be ecologically sound and the bulk of economic benefits will accrue to the region
- Resource development occurs only when the majority of people in the region have voiced their approval
- Moderate population growth
- Moderate growth of the Gross Regional Product

- Moderate In-Migration to the region
- Moderate growth in infrastructure
- Virtually no outside influence (outside Canada) in development of resources
- Retention of considerable amounts of landscape in its natural state
- Moderate Growth of Local Market
- Moderate out-migration of young people from the region

Advantages:

- Moderate Growth of Gross Regional Product
- Retention of a large number of youth in the region
- A Growing Local Market for goods and services
- Only moderate change in the social structure of the region
- Provides some jobs for local people
- Provides a source for development of the economy
- Moderate growth of population
- Some growth in the infrastructure
- Retention of some wilderness areas and large amounts of recreational space
- Less disturbance of the traditional ways of life of the Indian and Metis peoples than the Wholesale Exploitation model
- Less ecological damage than with the Wholesale Exploitation Model
- Provides some option of income flows to the region (probably of much higher value) at a later date
- Eliminates problems of regional inflation, housing shortages, etc. associated with extremely rapid growth
- Provides some option of building resource-processing complexes with Canadian capital at a later date yielding much higher returns to the region than currently are occurring or would occur with the Wholesale Exploitive model

- Minimizes danger of Boom-Ghost Town phenomenon
- Enables the Human Landscape to evolve more slowly and hence more in harmony with the natural environment than is the case with the Wholesale Exploitive model
- Reduces the need for Foreign capital and hence Foreign control of the major economic processes
- Reduces economic penalties to those in the region on fixed incomes
- Reduces the threat to regional merchants

Disadvantages:

- Does not maximize the Gross Regional Product at present
- Does not maximize the size of the population
- Creates fewer professional positions
- Does not maximize the size of the local market
- Does not maximize the income flow from resource development now
- Creates a reduced infrastructure in the region
- May antagonize certain corporations and government agencies operating outside the region
- It requires considerable energy to maintain such a path of development because the economic system operating in North America heavily stacks the odds against it
- Out-migration of young people may be higher than with the Wholesale Exploitive model although with youth's increased emphasis on the non-material aspects of life, the converse could occur
- Some ecological damage will occur
- Considerable wilderness will be destroyed
- Recreational space will not be maximized

- Does somewhat reduce options concerning the construction of a future resource complex or Canadian development

Reasons for Occurrences:

- It is always easier to drive the middle of the road

The following is a list of concerns. Refer to the three models of future development just stated and apply them to the individual issues. This hopefully will set the stage for some thought and discussion.

| | |
|---|---|
| Jurisdictional Authority | - Present land use |
| Exploration, exploitation and development | - Wilderness parks and wilderness |
| Timber leases (clear cutting)<br>coal leases (strip mining)<br>gas and oil exploration (cut-lines and roads)<br>grazing leases | - Indian land tenure, squatters<br>Key grazing ranges |

The wasteful use of non-renewable resources will definitely put the area into a state of "irreversibility". What we do now will have its influence, whether good or bad, on the people and the landscape for a long, long time. Before anything is decided a good look at the situation must be taken now.

"The Rights of People have to be considered."

Conclusion

This paper discusses the major economic and social issues facing the Smoky River Drainage Basin and points out some of the problems that will arise in its future development. It emphasizes the need for a plan through which growth can be guided, controlled or induced. This paper does not assume that all growth is good or bad regardless of its direction or degree, but it does assume that some measure of growth is both inevitable and desirable.

Necessarily, the final plan will be based on policies lying somewhere between the extremes and may well involve a combination of several growth - controlling and growth - stimulating techniques. There are no pat solutions or final answers in this paper. Its comments and observations are offered as a way of encouraging the people of the region to think seriously about the future and to help search for the answer to one fundamental question:

"What kind of region do we want?"

In June and July, 1973, a series of public hearings will be held to discuss the Foothills Area of Alberta. The hearings for the Smoky River Drainage Basin Study Area are scheduled to be held in Grande Cache on July 10, 1973, and in Grande Prairie on July 12 and 13, 1973.

Only with your help and participation can this project be a total success. Now is your chance to react to this paper. The staff of the Peace River Regional Planning Commission welcomes the chance of hearing your opinions and ideas. Also, the Commission's office is being set up as an information centre to provide the public with all available information possible on the area. Please take advantage of this service.

Thank you.

# BIBLIOGRAPHY


## 1. History

Allan, J.A. and Carr, J.L. "Geology and Coal Occurrence of Wapiti - Cutbank Area, Alberta, Research Council of Alberta, Report #48, 1946.

Alberta Department of Lands and Forests, Summary: Public Hearings on Proposed Pulp Mill Development in the Grande Prairie Area, October 27, 1967, (Report by Canfor and Grande Prairie Chamber of Commerce).

Impact on the Environment of Surface Mining in Alberta, Environmental Conservation Authority, summary of public hearings, report and recommendations, January 1972.

Kish, John J., Evaluation of a Rural Industrialization Project, (Unpublished Master's Thesis on Procter and Gamble Cellulose Ltd. grant), 1972.

## 2. Water Protection

Brief on the Alienation of Lake Frontage Land in Undeveloped Areas of the Peace River - Liard Regional District.

Alberta Fish and Game Association, Wild Rivers Policy, 2.4

Boating in Alberta, A summary of Boating Regulations, 1972

## 3. Roads

Rural Road Inventory and Future Road Needs Wapiti Study Area #14, Beairsto - Stewart - Weir, Grande Prairie, 1966

Smoky River and Grande Cache Access Road project # M.P. 2, Department of Highways, Planning Branch.

Highway #940, Secondary Road Grande Prairie - South of Wapiti River, Location Study report, Department of Highways, Planning Branch

Route Study, Grande Cache - Grande Prairie Highways, Department of Highways and Transport, Planning Branch, May 1972.

## 4. Peace River Regional Planning Commission Reports

Webster, D.R., Central Places in the Peace River Region of Alberta, November 1971

Webster, D.R., People of the Peace - Their Goals and Objectives, August 1972

Webster, D.R., Preliminary Regional Plan (Unpublished)

Fairbairn, K.J., and Ironside, R.G., An Economic Base Study of the Peace River Regional Planning Commissions' Region, January 1973.

5. Regional Studies

Brief: Recreation and Conservation Policies of the Peace River - Liard Regional District, January 1971.

Monkman - Kakwa Proposal for Resource Planning Study, February 1971,
Regional District of Fraser - Ft. George
Peace River - Liard Regional District
Peace River Regional Planning Commission

Monkman - Kakwa (Proposal brief)

Northwest Tourism, 1973 (Preliminary draft)
Peace River - Liard Regional District

Western Europe (Northwest Tourism 2), 1973 (Preliminary draft)
Peace River - Liard Regional District

Radio and Press Info Re: Recreation and Conservation, 1973
Peace River - Liard Regional District

6. Related Material

Wild Kakwa Wilderness Proposal

Canada and the Human Environment, A contribution by the Government of Canada to the United Nations Conference on the Human Environment, Stockholm, Sweden, June 1972.

Byways and Special Places, National and Historic Parks Branch under authority of Honorable Jean Chrètian, Minister of Indian Affairs and Northern Development.

QUESTIONING BY THE AUTHORITY

MR. KINISKY:

You mentioned that not much oil and gas operational work is in progress, but I notice from the map that the whole area is leased quite extensively. As the petroleum resources start to drop off, what is the possibility that this whole area will become quite active as far as exploration and extraction are concerned?

MR. SULLY:

Fifty per cent of the entire area is under petroleum and natural gas lease and a large part is also under a more temporary status of exploration reservation. The activity to date has been moderate in these areas because it has been easier to operate in other areas where there are known reserves. In the future, as our resource supplies become more restrictive, I think you will see an increase of activity in the oil and gas industry.

MR. KINISKY:

The coal leases are very extensive through the whole area. How many different owners are there as far as the coal leases are concerned?

MR. SULLY:

To my knowledge, there are at least nine different owners.

MR. KINISKY:

One of the things that interests us is the lack of communication and transportation between Grande Prairie and Grande Cache. What is the status of the planning commission on this particular road?

MR. SULLY:

We're not involved in the planning of the actual route of the road. We are more interested in the concept of having a road connecting Grande Cache with Grande Prairie for those reasons that I've outlined. For our purposes it is part of the planning commission area. Access between Grande Prairie and Grande Cache is poor and we feel the problems experienced by Grande Cache could be partially overcome if there were a more direct link.

If that road was there we feel there would be a certain amount of tourist traffic, and according to all the statistics the current trend toward outdoor recreation will continue and will, I think, increase geometrically. Much of the traffic goes to the parks from Edmonton and Calgary, either along the Banff-Jasper Highway or west. We feel that if that highway was constructed some of the traffic would be channelled farther north and most of it would come right through the centre of Grande Cache.

With regard to the proposed commercial tourist facilities in this area, we have recommended that rather than have them strung out in a line along the foothills, it would be of benefit to all if the hotels, et cetera were focussed on Grande Cache. With these facilities in or near Grande Cache a centre of activity would be created that would benefit everyone here.

MR. KINISKY:

There is an existing road which could be upgraded and which leaves Grande Cache on a dead-end spur. The proposed new road would run through Grande Cache past the mine site and out towards Grande Prairie. Which of these roads is favoured by the planning commission?

MR. SULLY:

The Department of Highways has done a study on alternate routes. I'm not sure if one of them included upgrading the existing trunk road or not, but three different routes, west, east and central have been proposed. We don't necessarily agree with the exact westerly route delineated by the Department of Highways, but we agree that it should run towards the west to bring it through Grande Cache. I believe that route was about $7 million more than any of the others proposed, due to the problems of getting out of the Smoky River basin, but we feel the money would be well spent.

MR. KINISKY:

I understand that in the vicinity of Grande Cache there are some good coal deposits. What is the view of the planning commission as to stripping Grande Cache mountain?

MR. SULLY:

We've merely concurred with the findings of the Authority in the hearings they had on strip mining and reclamation. We feel that if a site can be mined without serious damage to the surroundings and the environment, and if it can be reclaimed to its original condition or better, we would say go ahead and mine it. But if not, the long-term cost should be the overriding factor and the site should not be mined.

MR. KINISKY:

How much of the land in the planning area is used for horse grazing and how much for cattle grazing? How dependent on the leases are the people using the grazing land?

MR. SULLY:

The land lies on the fringe area just south of the Wapiti River. Some of the mixed farms are on marginal lands and raise a certain amount of coarse grain and cattle. I believe most of the leases are used for cattle and the farmers are relatively dependent on the leases in the actual foothills. I'm not aware of how many farms there are. Some of the leases are also probably used as grazing for horses.

MR. KINISKY:

With regard to the Kakwa Wilderness, if a westerly route for the road was followed which would pass pretty close to that area, would it not be a major access to it?

MR. SULLY:

It wouldn't pass that close. It would be probably in the neighbourhood of 20 miles from the boundary of the restricted development area. Rather than provide direct access beside it or through it, we feel access could be provided in the future by an adjoining trunk line.

MR. DOWLING:

There seems to be an element of conflict in The Wilderness Act. Has your planning commission taken a position on what should be done with the Willmore Wilderness? Do you think it might be beneficial to provide that area with statutory protection?

MR. SULLY:

We recommend in our brief that the boundaries should be left as they are and some of the eastern townships could perhaps be opened. As it is now, the entire wilderness is restricted to vehicular traffic. We feel that in the future a part of the eastern area could be made available for camping facilities with some type of restricted vehicular traffic.

MR. DOWLING:

What is your position with respect to the mineral leases that have been granted from time to time in the area?

MR. SULLY:

We have recommended that the boundaries be left as they are, and if those mineral leases are in conflict with the purposes of the Act, then perhaps the owners should be compensated and the leases should be withdrawn.

MR. DOWLING:

There is obviously a tremendous potential here for pulp and I understand a number of sawmills are producing commercial lumber. What is the potential for commercial grade lumber in the area?

MR. SULLY:

Imperial Lumber operates one sawmill at Sherman Meadows which is currently being phased out in that location and being moved farther north. So it seems they've reached their limit for mature timber there. In the vicinity of Musreau Lake and further east, North Canadian holds a timber agreement with the government. There is a large capability there for commercial grade saw log timber. It's one of North Canadian's major operating areas and I think they will be there for some time.

MR. DOWLING:

Are they established in this location at present?

MR. SULLY:

Yes. They have an agreement with the government.

MR. DOWLING:

This is a great watershed area. Are there any activities at present that are threatening watershed protection in this area?

MR. SULLY:

One thing that concerns us is the change in the scale of the logging operations that will come in the near future. We're going from clearcuts of 80 acres to clearcuts of 400 acres. The forest service will be regulating the actual cutting patterns and location of

the cutting, but I'm not sure if anyone is really aware of the consequences of this large scale clearcutting over an area of 5,300 square miles. I know on the lease held by North Western Pulp and Power in the Hinton area extensive studies have been done on the changes in the stream flow and quality.

I think we're just now assessing what the problems may or may not be. But we feel it certainly is a concern. Other than that we would stand by our policy to keep industrial operations out of the river valleys and avoid as many conflicts as possible.

MR. DOWLING:

Does the Bennett Dam on the Peace River affect your planning this far south?

MR. SULLY:

It does and it doesn't. Nearly all the headwaters of our commission area, other than those that rise in Jasper Park, including the Smoky River itself, are on the other side of the border in B.C., and as a planning commission we are concerned with what activities are going on in B.C. We're concerned about the Bennett Dam, coal leases along the mountains and foothills and logging contracts granted on the other side of the border. To try to convey our concerns and our opinions on land uses, we've set up what we feel is good communication with the Peace River-Liard Regional District whose office is in Dawson Creek. We communicate with them quite frequently on different proposals, industrial uses, recreation and so forth.

MR. DOWLING:

Do you have good communications with them?

MR. SULLY:

We feel they're reasonably good.

MR. DOWLING:

Are there any bureaucratic impediments obstructing communication?

MR. SULLY:

No. They're very informal and unregimented. The commissions are autonomous; they operate independently from the government departments. So we have freedom. Our director can simply drive to Dawson Creek and talk to their director. Mutual problems can be discussed without seeking other opinions.

MR. DOWLING:

How well informed are you, and what sort of communication is there between your planning commission and other departments of government, such as the Department of Highways?

MR. SULLY:

Although representatives from the Departments of Municipal Affairs, Lands and Forests and Highways sit on our commission, we feel there is considerable room for improvement. We touched on this problem in our brief. The Department of Highways is not a problem, however.

We feel that many of the decisions that affect this region are made outside the region. Much of the detailed management planning, for the green area especially, is carried out in Edmonton and we feel that one of the chief responsibilities of the commission is to articulate the goals and objectives of people living in this region.

The Peace River country is a separate region with an identity distinct from the rest of Alberta. We feel that the people of the area should be more involved than they have been in the decision-making in Edmonton. The planning commission is the medium through which people can voice their opinions and objections, and we feel there is the need for improved communications with some of the government departments. We are aware of several instances where planning and a certain amount of decision-making have been going on in the commission area and we haven't been contacted by letter or telephone. So we've taken the initiative and contacted some of these organizations, saying we want to be involved when the decisions are made.

MR. DOWLING:

Would this make your job much easier?

MR. SULLY:

Yes. Under The Planning Act it's our job to prepare a regional plan and to do this we have to undertake studies on a wide variety of issues, not just industry or recreation, but the distribution of social facilities, of social problems, keeping in mind that it is a vast area. We have a limited staff so from time to time our discussions become rather broad. Unless we know what's going on in Edmonton, we lose an element of realism in our planning that we ought to have.

MR. DOWLING:

You mention recreational potential along the river valley bottoms. Do you see any conflict between that and the wildlife range which is quite often located along the river valleys?

MR. SULLY:

Yes. There are areas where the capabilities overlap and we're aware of potential conflicts. The location of recreational facilities is one of the factors that will have to be taken into account because if you don't have winter range for these big game animals you will lose them.

We're not saying that recreation in the river valleys is any less detrimental than industry. Hikers and campers also have a lot to learn about protecting the environment. In river valleys especially, when you get large numbers of people, you can experience problems just as serious or even more so than those associated with an industry located there. So an education process is necessary.

MR. DOWLING:

You refer specifically to the Rocky Mountain cariboo and you talk about Kakwa, but there appears to be a key range along the Torrens River paralleling the Alberta-British Columbia border. Have you had any discussions with the Fish and Wildlife Division of Lands and Forests to find out whether the lumbering operation in that area has had any impact upon the cariboo range?

MR. SULLY:

We haven't discussed that problem with them. The edge of the cariboo range on the border is touched by the Imperial Lumber operation, and part of it may have been affected. Since those ranges are encompassed by the pulpwood lease I foresee some problems unless parts of it are deleted.

MR. DOWLING:

You have spoken of upgrading the road through to Grande Prairie and also a westerly route. What do you see in the way of additional roads to develop recreational potential?

MR. SULLY:

We would recommend building the Grande Cache-Grande Prairie highway to a design standard where recreational uses would be a prime consideration. It would not be a freeway or an expressway, but perhaps a standard hard-surfaced 50 to 55 mph design. To get people off that road you would need a certain amount of access. We haven't gone into the matter in detail, but we would be agreeable to providing at least limited access from that road.

MR. DOWLING:

Do you know if any hydro-electric power sites have been identified in the planning region for possible development in the future?

MR. SULLY:

Two have been identified outside of the Smoky River basin, one at Goodwin and one at Dunvegan on the Peace River. I'm not sure if the dams are for hydro or if they're for the PRIME [Prairie Rivers Improvement Management and Evaluation] on the water diversion project. I know that the Department of the Environment has looked at the possibilities of damming the Smoky River at the gate of the Willmore Wilderness Park to protect the railroad right of way downstream, but I think that proposal was dropped.

MR. DOWLING:

Which potentials will go ahead most rapidly and have the greatest effect on the area in the next ten years?

MR. SULLY:

Pulp harvesting will have the greatest effect on the Smoky basin, but coal is certainly an important consideration.

The Grande Cache Fish Game and Gun Club's

Proposal for a Gun Range in the Eastern Slopes.

---

Presented By: S.W. Wall

The Fish and Game Club of Grande Cache would like to propose a gun range be located on the southeast and southwest quarters of 29578 west of the sixth meridian, a site which was cleared some years ago by Alberta Power Ltd. to facilitate a work camp during their construction period. To date, other than being cleared and graded, this area has not been used or improved in any way.

For the proposed range which would consist of a large and small bore rifle range, a pistol range and a trap range, the area which has been cleared would be more than adequate. This would eliminate the costly problem of clearing another site and destroying more of the already too quickly deminishing forest.

The proposed range would be managed by the Fish and Game for the public with the intent of providing a facility for shooters to practice at or sight-in their firearms and eliminate the indescriminate prinking which occurs in our woodlands due to this practice. With some guidance by Fish and Game members during this practice, our woods will become a much safer place to roam. In regard for safety, even the local R.C.M.P. detachment has found this area to be excellent for use as a target range for both pistol and rifle as is stated in the accompanying letter from this detachment. Other letters accompanying this proposal expressing its merits come from the Department of Fish and Wildlife, Department of Forestry and from the Town of Grande Cache itself.

We would like to point out that application for a lease to this land was made as early as May 16, 1972, and to date, the people of this area have been denied a facility which can only help improve the safety of the community as a whole. Other clubs in central and eastern Alberta with a desire for the same type of facility have far less ado to obtain land regardless of whether it is forested or not and we

feel that just because of location, we should not be discriminated against. With this in mind, we of the Grande Cache Fish Game and Gun Club ask that the proposal for a gun range in this area be accepted and the lease be approved.

R.L. Sears,
Fish & Wildlife Officer,
Box 570,
Grande Cache, Alberta.

M.D. Warren,
Regional Fish & Wildlife Officer,
Box 1390,
EDSON, Alberta.

Sept. 28, 1973.

Regarding C.G. Campbell's memo dated September 21, 1972 and the enclosed recreational area lease applied for by the Grande Cache Fish, Game and gun Association it is recommended that the lease be approved.

1. Area is already cleared, access road leads from mine road to the site which was placed there by previous occupants.

2. No further development or enlargement of the area is planned with the exception of planting grass and removal of rocks etc.

3. A trailer has been donated to the Club which will be utilized as a clubhouse for the gun range,

It is an area well away from the townsite and there should be no conflicting interests with any other parties. This is something the community requires as at present our local nimrods have nowhere specific to utilize their firearms with absolute safety. Hunter Training programs are already in the planning stage for youngsters to train them in the proper handling of firearms and an approved area and range is essential for this type of program.

R.L. Sears,
Fish & Wildlife Officer.

RLS/lg
cc: G.M. Lynch
C.W. Hunt

1027-4

"K" DIVISION

R.C.M. Police,
Grande Cache, Alberta.
12 May, 1972.

Mr. Stan WALL,
c/o The Grande Cache Fish, Game
& Gun Association,
GRANDE CACHE, Alberta.

Dear Mr. Wall:

RE: Proposed Rifle Range and Clubhouse.

1. Mr. Stan Wall, President of the Grande Cache Fish, Game & Gun Association, Grande Cache, Alberta, contacted this Detachment with regards to the proposed rifle range and clubhouse to be located approximately 8 miles north of Grande Cache alongside the Smoky River and the C.N.R. Railroad Bridge which crosses same. A scale drawing of the area supplied by Mr. Wall and the site itself were examined closely in order to meet certain safety standards with regards to discharging high powered firearms.

2. The rifle range would be pointing in a South-east direction and the trap range would be pointing in a North-east direction. The backstop and distances involved in the rifle and trap are excellent and should cause no problems with regards to the projectiles. The discharging of firearms within the confines of the proposed range would not be a distraction to passing motor vehicles and access to this range can be controlled.

3. From our examination of this area, I feel the site is ideally suited for a Rifle and Trap Range.

Yours truly,

(J.C. Wolff) Cpl.
i/c Grande Cache Det.

JCW/jh

cc: Mr. K. O. Berge,
Development Officer,
Grande Cache, Alberta.

cc: Mr. Hylo McDonald,
Forestry Officer,
Dept. of Lands & Forests,
Grande CAche, Alberta.

GOVERNMENT OF THE PROVINCE OF ALBERTA

DEPARTMENT OF LANDS AND FORESTS

Box [illegible],

Grande Cache, Alberta.

[illegible]-5 June [illegible], 19[illegible]

Grande Cache Fish, Game & Gun Association,
Grande Cache, Alberta.

Attn: Stan Hall

Dear Stan:

Re: Recreational Lease Application
[illegible] - Twp [illegible] - Rge [illegible] - [illegible]

This is further to our recent discussions regarding your submission for a recreational lease for the purpose of a gun range and club house; hereunder are our comments relative to your application.

This office recommended approval of your application on October [illegible], 19[illegible], but as you are aware the lease issuance was held in abeyance until the Land Use Hearings were completed by the Environment Conservation Authority.

We were initially concerned with the location of the site as a gun range due to its close proximity to the mine access road, the Smoky River and the Alberta Resources Railroad. We then discussed the matter with Corporal [illegible] Wolff of the local R.C.M.P. detachment who advised that there should be no problems with regards to firearm projectiles.

The conditions under which we approve your application are that:

1. The area be properly signed outlining some strict regulations to all users, pointing out the dangers that exist in the immediate area such as railroad crew workers, fishermen and boaters on the Smoky River and passing vehicles on the road. It should be pointed out that only the established rifle range be used while target practising. Signs should also be set up surrounding the area indicating to fishermen and others that they are near a rifle range.

2. A backstop should be constructed so that bullets will not ricochet off of the site. We recommend that a [illegible] foot vertical cut be made into the existing sloped bank and be reinforced with a retention wall of large timbers.

3. Area should be [illegible] free of garbage debris and other deleterious material at all times.

We feel that your club should ensure that the above precautionary measures are implemented and enforced at all times.

Bisgrove

[illegible] Bisgrove,
Forest Officer II
Alberta Forest Service.

NEW TOWN OF

Grande Cache . . .

1027-6

OFFICE OF THE SECRETARY-TREASURER

P.O. Box 300,
Grande Cache, Alta.,
TOE OYO.

June 20, 1973.

J. P. Hourigan, Secretary,
Environment Conservation Authority,
9912 - 107th Street,
Edmonton, Alberta,
T5K 1G5.

Dear Sirs:

Re: Grande Cache Fish, Game and Gun Association

This is to advise that the New Town of Grande Cache fully supports an application to go before you for the development of the Gun Club for the above mentioned association.

The location of the site is SW 1/4 and SE 1/4 of 29-57-8-W6.

It is respectfully requested that approval be given on this site for this development.

Yours truly,

K. O. Berge,
Secretary-Treasurer.

KOB/wb

cc: S. Wall

QUESTIONING BY THE AUTHORITY

MR. KINISKY:

How far have you progressed in your discussions with the Department of Lands and Forests on the acquisition of the land under lease?

MR. WALL:

We had numerous communications with them and the matter was constantly set aside. It was originally a permit lease by Alberta Power. We tried to sublease the land from them but Forestry would not approve this. Since then, Alberta Power has relinquished its lease on this property. We applied for the lease and correspondence continued until last September when we were told we must wait for the environmental hearings. We received a letter from Lands and Forests imposing restrictions such as fencing, marking and adequate backstops that we had planned to do ourselves anyway.

MR. KINISKY:

So you have carried out some improvements on it already?

MR. WALL:

Yes we have.

MR. KINISKY:

Are you interested in controlling access to the area so it will remain a safe place where you can continue your shooting?

MR. WALL:

Yes. It's open to the public and they can go there at any time. But we would give instructions on firearms and hunting safety for juniors and seniors. I am sure this would benefit everyone.

MR. KINISKY:

Is there any possibility of a conflict with future coal operations?

MR. WALL:

I can see no conflict in this respect.

MR. KINISKY:

And right now nobody is holding that under lease?

MR. WALL:

No.

MR. DOWLING:

You say that you should not be discriminated against just because of location. What's the matter with the location as far as other people are concerned?

MR. WALL:

In most of the other areas in the prairies, or where there are private lands, we could buy or lease land or have it donated to us. In this area it seems very difficult to obtain land for lease.

MR. DOWLING:

Where is the location in relation to the town? Is it in the town limits?

MR. WALL:

No, it's approximately five miles towards the mine, where the CNR bridge crosses the Smoky River.

MR. DOWLING:

Are there any dwellings in the immediate area?

MR. WALL:

No.

MR. DOWLING:

Do you feel that people will be affected if you're firing in these mountain valleys where there's a tremendous amount of echo, especially from larger calibre rifles?

MR. WALL:

I would say not. Dynamiting is going on in the area which doesn't seem to bother anybody.

MR. DOWLING:

How large is your club membership?

MR. WALL:

At present it's approximately 75. Last year we had a membership of 101 and we foresee this increasing to 150, but the range is open to members and non-members.

MR. DOWLING:

So it would not be used exclusively by your own group? If a visiting hunter wants to sight in his rifle, can he make arrangments to use the range?

MR. WALL:

It's completely open to the public.

A SUBMISSION

TO THE

# E N V I R O N M E N T  C O N S E R V A T I O N  A U T H O R I T Y

BY THE

GRANDE CACHE BORAD OF ADMINISTRATORS

GRANDE CACHE, ALBERTA

JULY 10, 1973

PRESENTED BY: MRS. MARY STEPHENSON

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3. WILLMORE WILDERNESS PARK.

4. OTHER DEVELOPMENTS IN AREA.

5. SUPPORTING DOCUMENTS:

(a) Monkman-Kakwa Report.

(b) West Yellowhead Development Council - Letter - May 18, 1973.

(c) McIntyre Porcupine Mines - Letter April 12, 1973, E. P. Johnson.

(d) Grande Prairie Chamber of Commerce - Letter - May 29, 1973.

THE FOLLOWING SUBMISSION MADE ON BEHALF OF THE CITIZENS OF GRANDE CACHE THROUGH ITS BOARD OF ADMINISTRATORS CONTAINS CERTAIN RECOMMENDATIONS FOR THE CONSIDERATION OF THE ENVIRONMENTAL AUTHORITY IN FORMULATING A POLICY TO ASSIST GRANDE CACHE TO CONTINUE AS A VIABLE COMMUNITY.

OUR COMMUNITY, ESTABLISHED IN 1966 BY ORDER IN COUNCIL, WAS CREATED AND CONTINUES TO EXIST BECAUSE OF THE RESERVES OF LOW VOLATILE METALLURGICAL COAL UNDER LEASE TO MCINTYRE PORCUPINE MINES.

THE PLANNING OF GRANDE CACHE, CARRIED OUT BY THE PROVINCIAL PLANNING BOARD, INDICATED A POPULATION OF 5,000 PERSONS IN GRANDE CACHE BY 1973. ON DECEMBER 31, 1972, AN OFFICIAL CENSUS RECORDED 3,580 CITIZENS, OR APPROXIMATELY SEVENTY PERCENT OF THE PROJECTION.

WITH RECENT DEVELOPMENTS WITHIN THE COMMUNITY, AND WE RELATE NOW TO THE JANUARY 30, 1973 ANNOUNCEMENT MADE BY MCINTYRE PORCUPINE MINES THAT SOME STAFF WOULD BE LAID OFF, AND WHICH ULTIMATELY AFFECTED 143 HOURLY PAID WORKERS AND 62 SUPERVISORY STAFF MEMBERS, THIS ACTION ON THE PART OF THE MINE SERIOUSLY AFFECTED THE ECONOMY OF THE COMMUNITY.

IN VIEW OF THE ORIGINAL OPTIMISM EXPRESSED FOR THE COMMUNITY OF GRANDE CACHE BY THE PROVINCIAL PLANNING BOARD AND THE GOVERNMENT OF THAT DATE, WE FEEL THAT IT IS ESSENTIAL THAT THE BOARD OF ADMINISTRATORS ENDEAVOR, THROUGH MEETINGS WITH THE PROVINCIAL CABINET, THE CRUMP COMMISSION, AND THE ENVIRONMENTAL AUTHORITY, TO EXPRESS OUR OPINIONS AND BELIEFS THAT THE ONE INDUSTRY COMMUNITY THAT WE NOW HAVE MUST

HAVE A SECOND SUPPORTING INDUSTRY, AND WE BELIEVE THAT OUR FUTURE DEPENDS UPON THE SUPPORT OF YOUR GROUP IN OUR REQUEST FOR TOURISM FOR THE GRANDE CACHE AREA.

WE BELIEVE THAT THE TERRITORY WHICH LIES BETWEEN GRANDE PRAIRIE TO THE NORTH AND HIGHWAY 16 TO THE SOUTH SHOULD BE FULLY DEVELOPED ON A SYSTEMATIC BASIS, THAT THE CROPPING OF TREES FOR BOTH THE PULP AND TIMBER INDUSTRIES BE PROCEEDED WITH, AND THAT AN ACTIVE REFORESTATION PROGRAM BE CARRIED OUT TO ALLOW FOR A BETTER TYPE OF GROWTH IN THE FOREST THAN IS EXPERIENCED AT THE PRESENT TIME.

WE AGREE IN PRINCIPLE WITH ENVIRONMENTALISTS AND ECOLOGISTS. WE BELIEVE THAT SOME FIRM SORT OF CONTROL MUST BE LEGISLATED, HOWEVER, WE MUST CERTAINLY SUPPORT THE FACT THAT THE PROVINCE OF ALBERTA AND THE LAND CONTAINED THEREIN IS FOR PEOPLE. WE HAVE A RIGHT TO ENJOY THE HERITAGE OF OUR LAND BUT ALSO TO HARVEST ITS RICHES. WE KNOW FROM WHAT WE HAVE EXPERIENCED THAT NO PERMANENT DAMAGE NEED TAKE PLACE WHERE AN AREA IS TO BE DEVELOPED FOR THE PURPOSE OF REAPING THE HARVEST, WHETHER IT BE COAL, OIL OR ANY OTHER COMMODITY. WE KNOW THAT WITH PROPER RESTORATION AND REFORESTATION PROGRAMS, ALL ONE HAS TO DO IS LOOK ABOUT US, SPECIFICALLY THE HIGHWAY THAT WAS BUILT FROM HINTON TO GRANDE CACHE, AND MARVEL AT THE WAY THE GROWTH HAS TAKEN PLACE.

OVERCROWDING OF PRESENT PARK FACILITIES

AS YOU MAY BE AWARE, MANY REPORTS OF RECENT DATE HAVE BEEN RELEASED THROUGH THE NEWS MEDIA CONCERNING THE OVERCROWDING OF PARK FACILITIES, AND WE REFER NOT ONLY TO

PROVINCIAL PARKS, BUT TO THE NATIONAL PARKS AS WELL. THE BOARD OF ADMINISTRATORS HAVE FELT FOR SOME CONSIDERABLE TIME THAT THE TOWN OF GRANDE CACHE SHOULD TAKE ITS RIGHTFUL PLACE IN THE PROVINCE AS A RESORT COMMUNITY, AND IT SHOULD BECOME A PARK DESIGNED ALONG THE LINES OF THE NATIONAL PARKS SUCH AS BANFF AND JASPER.

THE FACILITIES TO ENCOURAGE THIS TYPE OF DEVELOPMENT HAVE ALREADY BEEN ESTABLISHED IN THAT WE HAVE TWO MOTELS - 73 UNITS, AND A HOTEL - 48 ROOMS, VERY CAPABLE OF HANDLING A GOOD VOLUME OF TOURIST BUSINESS. THE TOWN HAS PROVIDED A HOLIDAY TRAILER COURT WHICH WILL HOUSE 75 HOLIDAY TRAILERS, AND THE SHOPPING FACILITIES ARE PRESENT AT THIS TIME. WE HAVE GOOD RECREATIONAL FACILITIES IN THAT WE HAVE A REGULATION SIZED SWIMMING POOL, A CURLING RINK AND AN ICE ARENA, ALL UNDER ONE ROOF.

THE TOWN HAS A HOSPITAL, AND THE OTHER FACILITIES ARE MORE THAN ADEQUATE TO MEET NOT ONLY THE NEEDS OF THE RESIDENTS BUT OF ANY INFLUX OF PEOPLE WISHING TO ESTABLISH THEMSELVES IN BUSINESS OR RESIDE HERE.

CONTINUATION OF HIGHWAY 40

FURTHER, THE TOWN HAS BEEN ACTIVELY ENDEAVORING TO NEGOTIATE WITH THE SENIOR GOVERNMENT THE CONTINUATION OF HIGHWAY 40, WHICH IS COMPLETED AT THE PRESENT TIME FROM HINTON TO GRANDE CACHE (GRAVEL), TO BE EXTENDED TO GRANDE PRAIRIE WHICH WILL MEAN THAT WE WILL NO LONGER BE A DEAD END TOWN.

THIS HIGHWAY, OTHER THAN THE OBVIOUS APPARENT USEFULNESS IN SERVING TOURISTS, ENABLING THEM TO TRAVEL FROM THE ENTIRE PEACE RIVER BLOCK THROUGH GRANDE PRAIRIE, GRANDE CACHE, HINTON, ON TO THE YELLOWHEAD, WILL ALSO SERVE AS AN EXIT ROUTE IN THE EVENT OF FIRE. WE HAVE ONLY ONE ROAD IN AND OUT OF THE AREA NOW, MAKING IT EXTREMELY DIFFICULT TO LEAVE SHOULD WE HAVE A SERIOUS FOREST FIRE.

PERHAPS EVEN MORE IMPORTANT IS THE FACT THAT THE SERIOUSLY ILL WHO PERHAPS CANNOT BE TREATED IN GRANDE CACHE THROUGH COMPLICATIONS OF ONE SORT OR ANOTHER, COULD THEN BE TAKEN TO A LARGER MEDICAL CENTRE AT GRANDE PRAIRIE, WHICH IS CONSIDERABLY CLOSER BY ROAD THAN EDMONTON. CERTAINLY, IF IT WERE REQUIRED THAT A PATIENT BE FLOWN TO EDMONTON, IT WOULD BE MUCH EASIER TO DO SO FROM GRANDE PRAIRIE THAN GRANDE CACHE. THIS ROAD LINK IS ESSENTIAL, ESPECIALLY IN TIMES OF POOR FLYING WEATHER IN THE GRANDE CACHE AREA. WE DO NOT THINK THAT THE IMPORTANCE OF THIS ASPECT OF THIS COMMUNICATION LINK SHOULD BE OVERLOOKED AS IT RELATES TO THE HEALTH AND WELL-BEING OF THE INDIVIDUAL.

WEST YELLOWHEAD DEVELOPMENT COUNCIL

RECENTLY, THE WEST YELLOWHEAD DEVELOPMENT COUNCIL WAS FORMED, THIS BEING AN ORGANIZATION OF MUNICIPALITIES INTERESTED IN THE DEVELOPMENT OF THIS AREA, AND THEY ARE AS FOLLOWS: THE CHAMBER OF COMMERCE REPRESENTING JASPER, THE TOWN COUNCILS OF HINTON AND EDSON, AS WELL AS THE BOARD OF ADMINISTRATORS OF THE NEW TOWN OF GRANDE CACHE. WE ALSO

BELIEVE THAT THE CITY OF GRANDE PRAIRIE IS ACTIVELY CONSIDERING BECOMING A PART OF THIS DEVELOPMENT COUNCIL, WHICH IS NOT ONLY INTERESTED IN THE DEVELOPMENT OF GRANDE CACHE, TO MAKE IT A COMPLETELY VIABLE UNIT, BUT IS ALSO INTERESTED IN THE TOTAL DEVELOPMENT OF THE AREA AS A WHOLE, THIS INCLUDES THE REBUILDING OF THE ALBERTA RESOURCES RAILROAD.

WILLMORE WILDERNESS PARK

WE, AS CITIZENS WITH THE INTEREST OF ALL ALBERTANS IN MIND, FEEL THAT WILLMORE WILDERNESS PARK SHOULD BE OPENED UP TO THE GENERAL PUBLIC AND VEHICULAR TRAFFIC, TO THE MUDDY WATER RIVER AT LEAST, AND WE BELIEVE FURTHER THAT THE CITIZENS ARE ENTITLED TO ENJOY THE NATURAL BEAUTY OF THE PIERRE GREY LAKES, AND THAT FOOT PATHS SHOULD BE MADE INTO THE MUSKEG FALLS AND THE EATON FALLS.

WITH MORE LEISURE TIME, THE GENERAL PUBLIC BEING VERY AWARE OF THEIR SURROUNDINGS, AND WITH THE ABILITY TO TRAVEL AND THE MUCH INCREASED USE OF TRAILERS OF ALL DESCRIPTIONS, THIS AREA SHOULD BE MADE AVAILABLE TO THOSE WHO WISH TO LIVE WITH AND ENJOY NATURE. WE BELIEVE THAT THE LAND AND ITS FULL USE BELONGS TO NATIVE ALBERTANS AND CANADIANS AS A WHOLE. WE BELIEVE FURTHER THAT THE SENIOR GOVERNMENT HAS A RESPONSIBILITY IN THIS REGARD AND, IN FACT, ADVOCATE THE USE OF THE LAND.

WE WOULD FURTHER STATE THAT WE BELIEVE IN ENVIRONMENTAL AND POLLUTION CONTROL. TOURISM SHOULD NOT INTERFERE

WITH EITHER. WE BELIEVE THAT THE AREA COULD BE DEVELOPED IN AN ORDERLY FASHION TO PROVIDE FOR THIS PARK AND THE DEVELOPMENT OF GRANDE CACHE AS A RESORT AREA, AND AT THE SAME TIME ALLOW THE MINING OF THE MILLIONS OF TONS OF COAL, THE NATURAL RESOURCES BELONGING TO ALBERTANS WHICH WOULD PROVIDE FOR THE FLOW OF CAPITAL INTO THE ECONOMY NOT ONLY OF THE AREA BUT INTO THE COFFERS OF THE PROVINCIAL GOVERNMENT AND CANADIANS AS A NATION.

ROCKY MOUNTAIN RAINBOW LTD.

IN ADDITION TO THE DEVELOPMENT OF THE RESOURCES IN THE PROVINCE, WE FEEL THAT THIS ORGANIZATION SHOULD LEND SUPPORT TO THE DEVELOPMENT OF A FISH HATCHERY IN THIS AREA. THIS HATCHERY TO BE LOCATED NEAR THE MINESITE WILL PROVE TO BE BENEFICIAL IN MANY WAYS.

FIRSTLY, IT WILL PRODUCE GAME FISH THAT COULD BE PLANTED IN MANY OF THE STREAMS IN THE PROVINCE. SECONDLY, IT WILL OPEN UP A HUGE COMMERCIAL FISH MARKET. THIRDLY, THE HATCHERY WILL PROVE TO BE VERY BENEFICIAL AS A TOURIST ATTRACTION. WE FEEL THAT VENTURES SUCH AS THIS ARE COMPATIBLE TO THE AREA, AND WE WOULD CERTAINLY ENCOURAGE YOUR APPROVAL OF THIS TYPE OF INDUSTRY.

MOST IMPORTANT IS THE FACT THAT THIS HATCHERY WOULD EMPLOY SOME 40 TO 50 PERSONS, MANY OF THESE WOULD BE NATIVES. IT IS OUR INTEREST TO GIVE EMPLOYMENT OPPORTUNITIES TO AS MANY OF OUR NATIVE FRIENDS AS IS POSSIBLE. YOU WILL BE FULLY CONVERSANT WITH ROCKY MOUNTAIN RAINBOW LTD. DUE TO THEIR PRESENTATION, AND WE ARE CERTAIN THAT YOU WILL LOOK UPON THIS FAVORABLY.

MUSKEG-GRANDE CACHE - NATIVE AREA DEVELOPMENT COMMITTEE

WE SUPPORT THE APPLICATION BY THE ABOVE REGARDING THE GRANDE CACHE LAKE PROPOSAL WHICH WOULD SEE DEVELOPMENT OF THE LAKE SHORE FOR TOURIST ACCOMODATIONS.

NATIVE AREA DEVELOPMENT COMMITTEE - GOLF COURSE

THE NATIVES ARE ACTIVELY PURSUING THE IDEA OF DEVELOPMENT OF THE LANDS ADJOINING VICTOR LAKE AND HELD UNDER LAND TENURE BY PRINCIPALLY TWO FAMILIES, THEIR PROPOSAL BEING THAT PRIVATE CAPITAL IN COOPERATION WITH THE NATIVES BE USED TO DEVELOP THIS AREA.

WE MIGHT SAY AT THE OUTSET THAT THE LAND IN QUESTION SEEMS NATURAL FOR THIS DEVELOPMENT.

TORRENS RIVER RECREATION RESORT DEVELOPMENT

THIS IS A WELL-PREPARED BRIEF WHICH WE ARE SURE THAT YOU WILL CONSIDER, AND WE MUST AT THE OUTSET SAY THAT WE SUPPORT THEIR BRIEF. WE BELIEVE THAT THERE IS ROOM FOR THIS TYPE OF DEVELOPMENT WHERE IT IS PROPOSED, AS WELL AS THE DEVELOPMENT IN GRANDE CACHE. HOWEVER, WE FURTHER BELIEVE THAT THE ALL-WEATHER HIGHWAY SHOULD BE BUILT FROM GRANDE CACHE TO THE KAKWA FALLS AREA, AS STATED EARLIER IN OUR SUBMISSION.

WE BELIEVE THAT THE PROVINCE AND ITS RESOURCES ARE FOR PEOPLE, AND WE REQUEST THAT THE ROAD BE COMPLETED AS EARLY AS POSSIBLE SO THAT THE ELDERLY WHO CANNOT BICYCLE BUT WOULD LIKE TO SEE THE NATURAL BEAUTY OF THE AREA AND ARE NOT GOOD FLYERS, MAY ALSO BE GIVEN THE OPPORTUNITY TO TAKE ADVANTAGE OF SUCH A SCENIC ROUTE. THE DISTANCE IS SHORT

AND IF ROUTE THREE OF THE HIGHWAY ROUTE STUDY PROPOSAL IS ACCEPTED, PERHAPS THE APPROXIMATELY 35 MILES WOULD BE REDUCED VERY SUBSTANTIALLY. THIS WOULD MAKE IT POSSIBLE FOR TOURISTS TO MAKE THE LOOP, AND AVOID THE DEAD END SITUATION THAT GRANDE CACHE FINDS ITSELF FACED WITH NOW. ANY COMMUNITY WITH ONLY ONE FORM OF ENTRANCE OR ACCESS IS NOT LIKELY TO FLOURISH.

IN CONCLUSION, WE TRUST THAT OUR SUBMISSION WILL BE FAVORABLY RECEIVED, AND WE WOULD POINT OUT THAT OUR SUBMISSION IS BASED ON TWO POINTS:

FIRSTLY, THE TOWN WAS CREATED BY THE PROVINCIAL GOVERNMENT AT CONSIDERABLE EXPENSE. THE ALBERTA RESOURCES RAILWAY WAS BUILT, THE HIGHWAY FROM THE YELLOWHEAD TO GRANDE CACHE WAS COMPLETED, AND WE HAVE ASSURANCE FROM SOME OF THE CABINET MINISTERS THAT THE HIGHWAY WILL BE CONTINUED FROM GRANDE CACHE TO GRANDE PRAIRIE.

OUR SERIOUS SETBACKS IN THE EARLIER PART OF THE YEAR DID NOT PROMPT THIS SUBMISSION, IT IS AS A RESULT OF OUR BELIEFS AND FIRM CONVICTIONS THAT GRANDE CACHE HAS MUCH TO OFFER THE TRAVELLING PUBLIC, THE NATIVE ALBERTAN, AND CANADIANS AS A WHOLE, AND WE FEEL THAT THEY SHOULD BE GIVEN EVERY OPPORTUNITY TO VIEW FOR THEMSELVES THIS MAGNIFICENT AREA, THAT WE SHOULD BE GIVEN THE CHANCE TO DEVELOP THIS AREA WHICH WOULD ASSIST ALL ALBERTANS FINANCIALLY. THE FACILITIES ARE HERE TO ADEQUATELY LOOK AFTER THE TOURIST TRADE. WITH THIS SECOND INDUSTRY, WE CAN HAVE A COMMUNITY THAT IS COMPLETELY VIABLE AND ONE THAT SHOULD MAKE ALL ALBERTANS EXTREMELY PROUD OF THEMSELVES AND OUR COMMUNITY.

Honorable Dr. J. D. Ross
Minister of Lands and Forests
Edmonton, Alberta

Honorable R.G. Williston
Minister of Lands, Forest, and
Water Resources
Victoria, B.C.

Honorable R. Ratzlaff
Minister of Industry and Tourism
Edmonton, Alberta

Honorable F.X. Richter
Minister of Mines and Petroleum
Resources, Minister of Commercial Transport
Victoria, B.C.

Honorable A.R. Patrick
Minister of Mines & Minerals
Edmonton, Alberta

Honorable W.K. Kiernan
Minister of Recreation and Conservation
Minister of Travel Industry
Victoria, B.C.

Dear Gentlemen:

We believe that the efficient utilization of the resources in the North Central part of British Columbia and Alberta will be of utmost importance in order to achieve full economic development of the area without sacrificing its environmental and scenic quality. The Monkman-Kakwa Area offers a multiplicity of landuse opportunities, ranging from mining and other resources to wild life and watershed preservation.

It is our hope that the proposed study with its objectives and goals as outlined in the following report will enable all those involved in land use planning including your Ministerial Landuse Committee and Sub-Committees to carry out their functions in a manner which will meet the needs of our growing population, and will provide a quality of life which will compare favourably from both economic and aesthetic values with that found in other parts of British Columbia and Alberta.

We, therefore, proposed that a reserve be put up for 18 months on the study area as outlined in this report, to carry out the proposed resource planning study which will define both the single use and multiple use areas. During this study period, we therefore, feel that the public land within the study area should not be alienated for any use.

On the basis of this study we hope it will be possible to define the highest and best use of various areas.

| | | |
|---|---|---|
| L. Johnson, Chairman<br>Regional District of<br>Fraser-Fort George | W. Wanka, Chairman<br>Peace River-Liard<br>Regional District | J. Stewart, Chairman<br>Peace River Regional<br>Planning Commission |

February

1029-12

# MONKMAN-KAKWA

Proposal for a Resource Planning Study

A joint report prepared by:

The Regional District of Fraser-Fort George, B.C.
The Peace River-Liard, Regional District, B.C.
The Peace River Regional Planning Commission, Alberta

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# FORWARD

On December 17, 1970, the Chairman and Planners of the Regional District of Peace River-Liard, Fraser-Fort George and Peace River Regional Planning Commission (Alberta), discussed the proposal for establishing a recreation and conservation area with Park Status in the Monkman-Kakwa Lake Area. To define boundaries of the proposed recreation and conservation area, it was agreed that a resource planning study of the area should be carried out.

Due to the fact that the area concerned may be rapidly alienated for resource extraction uses only, it is desirable that a minimum of 18 month freeze on further alienations in this area be obtained. During this period, detailed resource planning studies with regard to recreation and conservation uses of the area, and of multiple use status for certain areas in which there are pre-dating mineral claims will be made.

The goals and objectives of the proposed resource planning study and the reasons for consideration of Monkman-Kakwa area as possibly suitable area for conservation and recreation uses are outlined in the following report.

# INTRODUCTION

Until recently the Monkman-Kakwa area was used locally by guides and their clients, by a few of the local population, by loggers and by the oil and gas exploration crews who have explored the area since 1962.

In 1970, coal mining interests claimed huge areas for exploration purposes.

This is one of the very few areas suitably located to the populated British Columbia and Alberta Peace River Regions, and to the Prince George Region, which offers outstanding scenery comparable to the Rocky Mountain National Parks.

As the sources of important headwaters of the Arctic and Pacific River systems are located in the proposed study area, a protection policy should be considered for these waters.

The variety of wildlife equals the potential of the Rocky Mountain National Parks. The northern half of British Columbia does not provide any developed park for the increasing local population and for an ever-increasing number of continental and overseas visitors. It is felt that not sufficient provisions are being made in Northern British Columbia to obtain for the area a fair share of British Columbia's fastest

growing industry - tourism. Together with resource extraction, this will be the most important industry for our northern area. Up to now only resource extraction has received attention in the northern areas.

## LOCATION

The proposed Monkman-Kakwa area is located in the Rocky Mountain Region stretching northwest from the Kakwa Lake area (which joins the Willmore Wilderness Park) for approximately 90 aerial miles in a northwesterly direction including Hook Lake at the northern end. The area is conveniently located to the surrounding populated Regions as indicated in the following Table - 1.

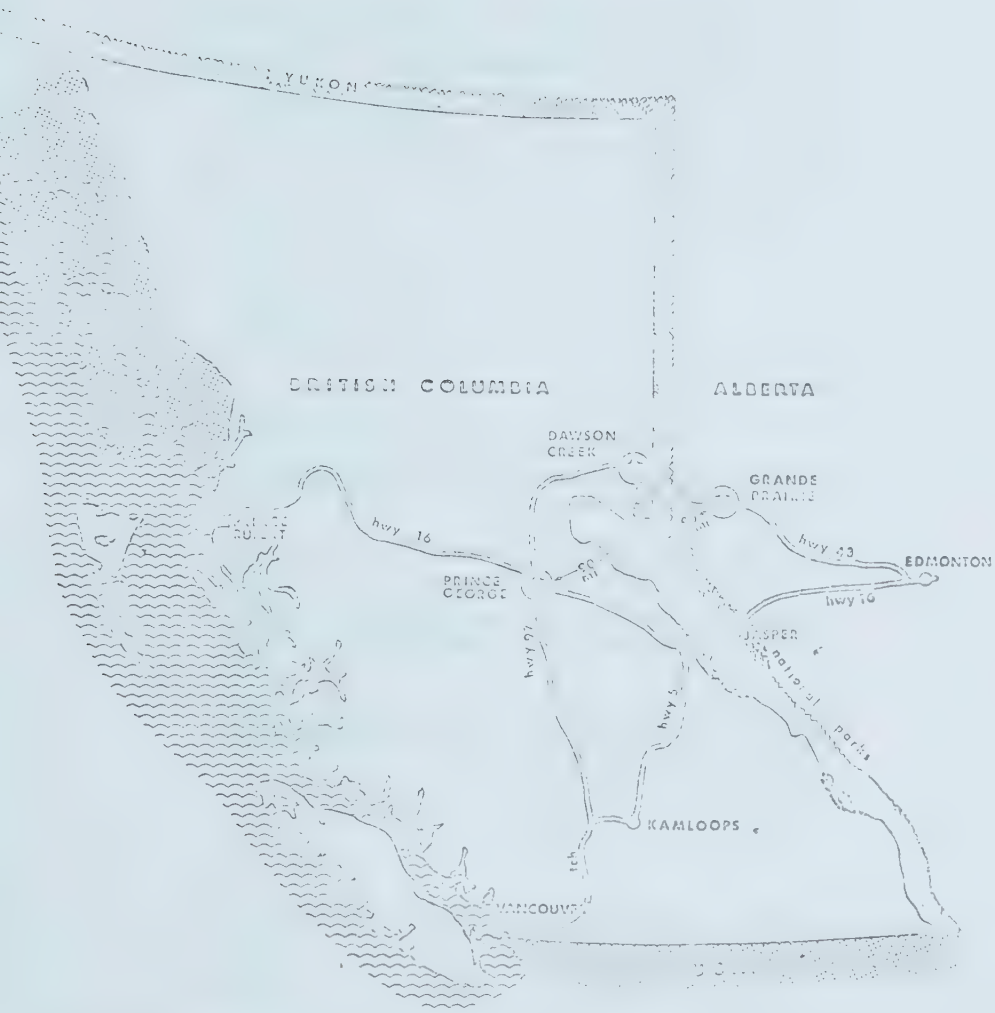
| Region | Population (Approx.) | Aerial distance from centre of the region to the proposed Monkman Kakwa area. |
|---|---|---|
| Peace River-Liard Regional District | 50,000 | 80 mi. (Dawson Creek) |
| Fraser-Fort George Regional District | 66,000 | 75 mi. (Prince George) |
| Peace River Planning Commission (Alberta) | 75,000 | 90 mi. (Grande Prairie) |

Map - 1 indicates the location of the proposed Monkman-Kakwa area in relation to the Provinces of British Columbia and Alberta.

Major arterials close to the proposed area are:

Highway No. 97 - John Hart Highway

Alaska Highway




LOCATION MAP
RESOURCE PLANNING STUDY AREA

N

| | |
|---|---|
| Highway No. 29 | - Chetwynd-Hudson's Hope-Charlie Lake |
| Highway No. 16 | - Yellowhead Highway |
| Highway No. 2 | - Dawson Creek-Grande Prairie |

The Highway under construction from Hinton to Grande Cache.

A variety of access roads exist in the form of resource roads from Dawson Creek, Grande Prairie, Beaverlodge and Chetwynd. The size of the area proposed for Resource planning study is approximately:

a. 1,400 square miles within the Peace River-Liard Regional District.

b. 1,350 square miles within the Fraser-Fort George Regional District.

c. 500 square miles within the area of the Peace River Regional Planning Commission.

Map - 2 shows the boundaries of the area proposed for Resource Planning Study.

## SCENERY

The Monkman-Kakwa Lake area is probably the only area in British Columbia's Rocky Mountains which combines in abundance all scenic features within a relatively small area. (See table below.)

TABLE - 2

| Nomination | Examples |
|---|---|
| Icefields<br>Glaciers<br>Peaks over 10,000 feet | Mt. Vreeland<br>Mt. Sir Alexander-Park Ranges<br>Ice Mountain |
| Alpine Meadows | Kakwa Lake, Cecilia Lake Area, Monkman Area |
| Forested Slopes | In all areas |
| Forested Valley bottoms | In all areas |
| Headwaters of important river systems | Sukunka, Murray, Wapiti, Kakwa River |
| Lakes at all altitude levels | Hook Lake, Monkman Lake Blue Lakes, Wapiti Lake Belcourt Lake, Kakwa-Cecilia Lake, Jarvis Lake.<br>Arctic, Portage and Pacific Lakes. Two Lakes. |
| Waterfalls | Kinuseo Falls, Monkman Falls, Kakwa Falls |
| Rapids | In all areas. |

Map - 2(A) indicates some of the many scenic spots and the boundaries of the present Guiding territories in the proposed study area.

# HEADWATERS

The outlined area is part of the continental Divide and contains headwaters of the Arctic and Pacific River systems. Since these headwaters are fed by glaciers and icefields, therefore, it assures a year-round flow of water, especially in the dry summer periods.

The following rivers have their sources in the proposed study area.

The Murray River - a tributary of the Peace River.

The Wapiti River

The Narraway River )
The Kakwa River ) - tributaries of the Wapiti River - Smoky River System.
The Torrens River )

The McGregor River - a tributary of the Fraser River.

# FISH AND WILDLIFE

The Monkman-Kakwa Area is known for its great variety of big game. Nearly every big game species of British Columbia can be found in this area including Grizzly, Black Bear, Moose, Elk, Caribou, Deer, Bighorn Sheep, Mountain Goat, Wolf. Figures are available from 1959 on, indicating numbers and species of big game taken out of this area by professional guides. According to these figures there seems to be no sign of a depletion of the big game potential, although this may change very soon when resource exploration makes the area accessible to the hunting public. Species which may very soon need a protective status in this area are sheep and grizzly.

Fishing is good in the non-accessible or less accessible areas. Known for good fishing are Hook Lake and Belcourt Lake.

In addition to the common species of the Arctic watershed, there is Kokanee in the Arctic, Portage and Pacific Lakes which is the only known Kokanee population in the Arctic watershed.

TABLE - 3

GAME TAKE OUT IN THE PROPOSED STUDY AREA

| YEAR | MOOSE | GOAT | CARIBOU | DEER | SHEEP | GRIZZLY | BLACK | ELK | WOLF | TOTAL SPECIES | HUNTERS | SUCCESS RATIO |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1959* | 3 | | 1 | | | 1 | 1 | 1 | | 7 | 6 | 1.16 |
| 1960* | 8 | 6 | 5 | | 4 | 1 | | | | 24 | 17 | 1.41 |
| 1961* | | 8 | 9 | 2 | 3 | 4 | 1 | 3 | | 30 | 18 | 1.66 |
| 1962* | 6 | 18 | 18 | 6 | 8 | 15 | 6 | 2 | | 79 | 31 | 2.54 |
| 1963* | 13 | 13 | 7 | 2 | 8 | 5 | 1 | 1 | | 50 | 35 | 1.42 |
| 1964* | 12 | 11 | 18 | 7 | | 7 | | 7 | | 62 | 40 | 1.55 |
| 1965 | 39 | 34 | 16 | 6 | 2 | 12 | 8 | 6 | 2 | 125 | 102 | 1.23 |
| 1966 | 32 | 15 | 26 | 2 | 3 | 9 | 8 | 4 | 1 | 100 | 72 | 1.39 |
| 1967 | 41 | 14 | 10 | | 1 | 15 | 3 | 2 | 1 | 87 | 82 | 1.06 |
| 1968 | 49 | 9 | 12 | 3 | 4 | 18 | 9 | 5 | | 109 | 103 | 1.06 |
| 1969 | 44 | 19 | 22 | 1 | 5 | 10 | 9 | 5 | 1 | 116 | 105 | 1.10 |
| 1970 | 44 | 21 | 23 | 1 | 3 | 10 | 10 | 2 | 1 | 115 | 123 | 0.94 |

*Figures for Peace River-Liard Regional District only.

Professional Guides

Game take out in the proposed Study area.

Source: Provincial Fish & Wildlife Department.

GAME TAKEN OUT IN THE INDIVIDUAL GUIDING TERRITORIES IN THE PROPOSED STUDY AREA TABLE - 4

| | MOOSE | GOAT | CARIBOU | DEER | SHEEP | GRIZZLY | BLACK | ELK | WOLF | TOTAL | HUNTER | SUCCESS RATIO |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | 1959 - 1970 | | | | | | |
| BEDELL | 38 | 54 | 40 | 9 | - | 21 | 13 | 13 | 1 | 189 | 106 | 1:1.75 |
| CALLIOU | 19 | 18 | 21 | - | - | 18 | 12 | 17 | 2 | 107 | 65 | 1:1.64 |
| FELLERS, R. | 18 | 6 | 11 | 2 | - | 4 | - | 1 | 1 | 43 | 43 | 1:1 |
| PRUCKL | 64 | 60 | 46 | 16 | 35 | 25 | 3 | 5 | 1 | 255 | 144 | 1:1.76 |
| | | | | | | 1965 - 1970 | | | | | | |
| BUCHI | 40 | - | 5 | - | - | 6 | - | - | - | 51 | 67 | 1:0.76 |
| COOK | 14 | 2 | 3 | - | - | 5 | 9 | - | 1 | 34 | 49 | 1:0.69 |
| GUDWER | 62 | 7 | 12 | 2 | 2 | 17 | 6 | - | 1 | 109 | 132 | 1:0.82 |
| SANDE* | 13 | - | 7 | - | - | 3 | 9 | - | - | 32 | 47 | 1:0.68 |

* Figures for 1969 and 1970 N.A.

Source: Provincial Fish & Wildlife Department.

## MINING - MINERAL EXPLORATION

A part of the proposed study area is covered with gas and oil leases totalling approximately 560 square miles. The leases are held by the following companies:

| No. | Permittee | Acreage | Issue Date |
|---|---|---|---|
| 1323 | Teck Corporation Ltd. | 18,695 | 19-4-62 |
| 1324 | Teck Corporation Ltd. | 18,658 | 19-4-62 |
| 1325 | Teck Corporation Ltd. | 18,620 | 19-4-62 |
| 1326 | Teck Corporation Ltd. | 18,583 | 19-4-62 |
| 1334 | Teck Corporation Ltd. | 18,545 | 6-12-62 |
| 1335 | Teck Corporation Ltd. | 37,165 | 6-12-62 |
| 1336 | Teck Corporation Ltd. | 37,240 | 6-12-62 |
| 1338 | Teck Corporation Ltd. | 18,658 | 21-3-63 |
| 1821 | Pubco Canadian Petrol Corporation | 36,752 | 24-9-68 |
| 1877 | C.W.Hunt | 74,855 | 3-10-68 |
| 2166 | Robert McGregor | 18,470 | 22-9-69 |
| 2167 | Robert McGregor | 18,433 | 22-9-69 |
| 3663 | Gulf Oil Canada Ltd. | 6,683 | 7-3-64 |
| 3665 | Gulf Oil Canada Ltd. | 5,949 | 7-3-64 |
| 3666 | Gulf Oil Canada Ltd. | 6,696 | 7-3-64 |
| 3667 | Gulf Oil Canada Ltd. | 6,471 | 7-3-64 |
| Total Acreage | | 358,473 acres | |
| | | = 560 square miles | |

In the year 1969/70 a strong interest in the coal deposits within this area emerged. In the summer months of 1970, huge areas were covered by leases for coal extraction and exploration and it is expected that further staking will take place this year. Up to now the McIntyre-Porcupine group and the Denison group have claimed areas covering 200 square miles and 40 square miles respectively within the proposed study area. In the Alberta area 24 square miles are under a coal lease and 200 square miles are under a coal exploration reserve.

Map 2B shows the location of coal, gas and oil leases within the proposed study area.

# FORESTRY

With regard to Forestry, the proposed study area is under the sustained yield programme.

A relatively small percentage of the proposed study area contains mature stands of timber. The mature timber stands within the study area are at the following locations:

- The Imperial Creek area (contracted to Imperial Lumber).
- An area East of Wapiti Lake
- An area Southeast of Mt. Becker at Red Deer Creek
- An area between Sekus and Nekik Mountain, Northwest of the Narraway River.
- An area around McGregor River.
- An area around Herrick Creek.

In the Alberta part approximately 60 square miles are under a pulp-mill timber lease and a large part of the rest of the area is under a provisional timber lease.

The location of the mature timber stands within the proposed Study area is shown on Map - 2(a).

## CORE AREAS

A comparison of the mineral leases and of the potential of mature timber in this area reveals (See Maps 2(a) & 2(b)) that certain areas which contain a variety of outstanding scenic features are free from mineral leases at the moment and have no mature timber resources. These areas could be considered as core areas for future recreational use. Within the 18 month study period an appropriate multi-use status for areas under alienation could be established, with due consideration given to conservation and recreation goals but allowing resource extraction under special regulations. Thus a large protected area necessary for certain big game species could be obtained. Scenic features and water systems would also be protected. Following are some of the objectives and goals for the proposed Resource Planning Study intended to be carried out in the 18 month reserve period:

OBJECTIVES AND GOALS OF THE RESOURCE PLANNING STUDY

a. Core Areas

- To define areas of high recreational value which are mainly free from alienation.

b. Resource Areas

- (i) To define single use areas - mineral resource and timber extraction, transportation corridors, prime recreational areas, conservation areas, etc.

  (ii) To define multi-use areas which allow several uses and where recreation and conservation aspects can be considered.

c. Scenery

- To document in form of photographs, maps and reports, the scenic areas and features.

d. Headwaters

- To outline and document the need for conservation policies in regard to important watersheds and headwaters.

e. Fish and Wildlife

- To study the necessity of sanctuaries for certain game species.
- To define the main habitat of important game species (summer and winter ranges) and to propose appropriate boundaries accordingly.
- To study spawning habits and spawning areas of fish species.

f. Flora

- To establish an inventory of the flora in the proposed area and to study the necessity of protection for certain species.

g. Population

- To demonstrate the need for a larger recreational area for the surrounding regions by studying the population structure and the population increase (due to resource development);
- To investigate long-term tourist trends (continental and overseas) and their economic impact and the increased interest in "wilderness" areas;
- To study the value of the proposed area in regard to distant metropolitan areas.

h. Transportation

- To consider the necessity and the effects of a transportation corridor (resource road, resource railway) through the proposed area.

i. Mining

- To define areas with prime mining potential.

j. Forests

- To define areas with prime forestry interest.

k. Boundaries

- After the above mentioned studies have been completed, realistic boundaries for core recreational areas (parks) could be proposed, taking into account the highest and the best use for the various other areas.

  Recreation and conservation uses should be considered on an equal basis with other uses and should not be regarded as left over uses in left over space.

## CONCLUSION

It is hopeful that the outcome of the Resource Planning Study will reveal certain areas which could be classified under recreation use status (Park). This would result in:

a. Establishing one of a possible series of necessary recreational areas for north-eastern British Columbia and northwestern Alberta;

b. Protecting outstanding alpine scenery;

c. Protecting a large variety of big game, including species which may be soon endangered such as grizzly, sheep and wolves;

d. Protecting a great variety of alpine plant life;

e. Protecting important headwaters of the Arctic and Pacific River Systems;

f. Providing recreational areas for the rapidly increasing population of the surrounding regions;

g. Attracting continental and overseas visitors to this area, thus bringing direct visitor revenues to the local regions;

h. Bringing relief to the problems of overcrowding in the neighbouring National Parks;

i. Helping to attract a reliable and steady workforce for the existing and oncoming resource industries and resource communities, (Prince George, Mackenzie, Chetwynd, Taylor, Grande Prairie, Grande Cache).

There is a distinct feeling that up to the present, despite an excellent potential, the northern half of British Columbia and the western portion of Alberta have been rather neglected in regard to major conservation and recreation areas, particularly in so far as the needs of the growing population and the rapidly developing tourist industry are concerned.

VISTOR NUMBERS IN BRITISH COLUMBIA AND ALBERTA NATIONAL PARKS TABLE - 5

| | 1961-62 | 1962-63 | 1963-64 | 1964-65 | 1965-66 | 1966-67 | 1967-68 | 1968-69 | 1969-70 |
|---|---|---|---|---|---|---|---|---|---|
| Banff | 1,069,623 | 1,374,576 | 1,650,257 | 1,605,784 | 1,803,490 | 2,044,537 | 2,050,735 | 2,147,425 | 2,346,030 |
| Jasper | 346,493 | 392,987 | 468,579 | 480,102 | 522,658 | 595,164 | 652,186 | 834,748 | 1,135,558 |
| Kootenay | 470,562 | 541,485 | 567,291 | 548,515 | 638,812 | 722,743 | 684,519 | 637,589 | 852,677 |
| Yoho | 99,160 | 375,189 | 678,739 | 658,518 | 689,313 | 864,454 | 855,224 | 912,940 | 867,516 |
| Glacier | 10,213 | 345,961 | 752,512 | 705,150 | 767,206 | 917,264 | 885,947 | 871,672 | 898,654 |
| Mount Revelstoke | 64,901 | 428,572 | 768,417 | 706,015 | 741,457 | 872,367 | 894,286 | 913,671 | 887,822 |
| Waterton Lakes | 420,865 | 444,752 | 441,803 | 371,258 | 393,426 | 487,589 | 503,729 | 516,112 | 472,850 |

Source: National Parks

1029-35

WEST YELLOWHEAD DEVELOPMENT COUNCIL

P.O. Box 818

Typed Copy

Hinton, Alberta

May 18, 1973.

N.R. Crump, Chief Commissioner,
Grande Cache Commission Counsel,
Ste. 202, 11111 - 87 Avenue,
Edmonton, Alberta.

Dear Sir:

The West Yellowhead Development Council wish to indicate to the Grande Cache Commission, support for the attached brief submitted by the Town of Grande Cache.

Our Development Council has membership from the towns of Grande Cache, Edson, Hinton and Jasper. The first three named are represented by elected councils, and Jasper is represented by the Chamber of Commerce.

The Development Council support four specific points in support of the brief, namely:

1. That a highway be built from Grande Cache to Grande Prairie.

2. Route No. 3 as proposed by the Department of Highways and Transportation in the studies of this route.

3. That the repair of the Alberta Resources Railway north of Grande Cache be expedited.

4. That all possible support be given to the Province of Alberta to acquire more equitable freight rates for Western Canada. It is considered that a better freight rate structure would create a more economical operation for the Alberta Resources Railway.

In addition to the above, it is the opinion of the supporting members that a route as designed by the highway study would be of benefit not only to the Town of Grande Cache, but to our member communities and to the province as a whole. We can reasonably state that this would be of benefit to Western Canada as a scenic route for tourists who travel Alberta.

In supporting the proposed Route No. 3, we do so with the realization that the route is longer than other proposals, but the scenic advantages would overcome any additional cost factors or shorter

N.R. Crump, Chief Commissioner May 18, 1973.

mileages. It is considered that tourists travel Alberta for the benefit of scenery, or for the benefit of the shortest possible route.

Support given to the submission made by the Town of Grande Cache is by the unanimous consent of the elected officials of each of the towns named and by authority of the Chamber of Commerce of the Town of Jasper.

Respectfully submitted,

Ross L. Ellis, Secretary,
West Yellowhead Development Council.

RLE/wb

12th April, 1973

Mr. K.O. Berge,
Secretary-Treasurer,
Office of the Secretary-Treasurer,
P.O. Box 300,
Grande Cache,
Alberta.

Dear Sir,

Careful perusal of your letter of March 29th 1973, to Mr. C.E. Richardson, percipitated a discussion with our President, Mr. R.B. Fulton.

Please bear in mind that I have a great deal of respect for Mr. P.L. Wright's abilities and acumen. As a fellow engineer I support Mr. Wright's views on the economics of the proposed highway routes.

However, as a member of a corporation with not only a vested but a very real interest in the Town of Grande Cache, I must go on record as stating that McIntryre Porcupine Mines Limited is one hundred percent behind the proposal to route the new road to Grande Prairie through the Town of Grande Cache.

Yours very truly,

E.P. JOHNSON
GENERAL MANAGER

EPJ/jmc.

MAY 29, 1973 GRANDE CACHE HEARING

A. INTRODUCTION

The purpose of this submission is to put forth ideas and thoughts from various sectors that would recommend to the Government of the Province of Alberta:

1) a course of action for future government policy and a program for the community of Grande Cache to become a more stable and economically viable centre.

2) undertakings and commitments given by the previous government administration which could involve a continuity of responsibility for public funds upon the Alberta government.

This brief will not purport to be a comprehensive cost-benefit analysis - but it is intended to outline some of the more economic, social and psychological factors which should be considered in making decisions regarding the future of Grande Cache. It must be pointed out that a decision regarding the future of Grande Cache based on this submission from Grande Prairie could have a long-lasting effect on the entire Northwest portion of Alberta.

The Honourable Minister of Regional Economic Expansion, Don Jamieson, stated in Halifax recently, "But Northern Alberta makes us in Atlantic Canada look positively affluent."

The average annual income for Census Division 15 based on the 1969 taxation year was $3,826 as compared to the Alberta

average of $5,062 (Department of National Revenue taxation statistics 1971 edition - attached).

The Grande Prairie submission deals primarily with the effects to Grande Cache, Grande Prairie, Northwestern Alberta and Alberta generally, upon the completion of a paved highway link from Grande Prairie, south through Grande Cache to Highway #16.

B. THE PAST

As far back in time as 1932, thoughts were to build a road or highway from Grande Prairie to Edson.

| | |
|---|---|
| 1963 December | The Grande Prairie Chamber of Commerce made a submission to the Northern Alberta Development Council regarding a highway link from the Yellowhead Route (Highway 16) to the Highway #2 North. |
| 1966 April | Grande Prairie Chamber of Commerce presentation to the Honourable G. Taylor, Minister of Highways re: Grande Prairie - Jasper highway. |
| 1970 November | Letters from Premier Strom re: promise of a highway from Grande Prairie south to Grande Cache. |
| 1972 April | Brief and delegation to the Honourable C. Copithorne by Grande Prairie Chamber of Commerce and Grande Cache Chamber of Commerce re: the Grande Prairie - Grande Cache highway. |
| 1972 October | Letter to Honourable P. Lougheed, Premier. |

Copies of the above are all included in Part D.

Now again in 1973 ..... the feelings, thoughts and aspirations of Grande Prairie are the same as in the past.

C. THE PRESENT AND FUTURE

1. TOURISM

It is accepted that tourism is, in Alberta, second only to the Gas and Oil Industry. It is also the thinking of many that a town saddled to a single industry is usually in a precarious position. The construction of a highway (paved) from Highway #16 through Grande Cache to Grande Prairie would be the spawning of a second industry in Grande Cache - tourist dollars. Coupled to this, the development of Willmore Wilderness Park and the introduction of a multitude of "circle tours" in Northwestern Alberta, increased tourist dollars should be realized from Hinton to Grande Cache to Grande Prairie and the North. The revenue is immeasurable at this time; however, suffice to say, the Province of Alberta would benefit.

2. HEALTH AND MEDICAL

The attached letter from Dr. Wynters, formerly of Grande Cache, now a resident of Grande Prairie -- brings forth ideas and thoughts from the medical profession, some quite frightening.

3. THE NEWS MEDIA

Editor W. Scott, Daily Herald Tribune, together with

the former news director of CFGP Radio have brought out several valid reasons in support of a highway from Grande Prairie to Grande Cache in the letter attached.

4. EDUCATION

Presently in Grande Prairie, a Regional College is under construction. The current school-age population of Grande Cache is approximately 1,000 plus. With the completion of a paved highway from Grande Cache to Grande Prairie, some of these students would be able to enjoy facilities of this college. The resultant distance being 90 miles as opposed to 250 miles to Edmonton.

5. SERVICES

Food, fresh milk, produce, perishables etc., warehoused in Grande Prairie would be only a few hours away from the grocers' shelves in Grande Cache. Increased and additional varieties of goods and services would be made available.

6. PEACE RIVER REGIONAL PLANNING COMMISSION

A discussion paper submitted for your consideration by the Peace River Regional Planning Commission is emphatically recommended for perusal and contemplation of the Inquiry Board.

7. OTHER AREAS

a) Social Development - as per attached letter

b) Cultural activities

c) Entertainment

d) Recreation - as per attached letter

e) Department of Highways - Route study Grande Prairie - Grande Cache.

It is but the summing up to say that, with the 250 million dollar investment the Province of Alberta has in Grande Cache, a very serious look should be taken at the ramifications that might accrue to Grande Cache, Northwest Alberta and the Province as a whole with the construction of a highway from Grande Prairie through Grande Cache to Highway #16.

D. SUPPORT DOCUMENTS AND LETTERS

This submission is respectfully and sincerely submitted by:

THE GRANDE PRAIRIE CHAMBER OF COMMERCE

10011 - 103 Avenue

GRANDE PRAIRIE, ALBERTA

QUESTIONING BY THE AUTHORITY

MR. KINISKY:

We have heard that a stop must be put to the endless access into our wilderness areas and the destruction that it brings. You have now presented an opposite view recommending access into these areas. How much access can be permitted before you are in the same position as the people farther south?

MRS. STEPHENSON:

At the present moment we have almost no access. If it is properly controlled and legislated so areas are not allowed to mushroom without control, this would greatly benefit the town and the community.

MR. KINISKY:

Do you feel that even with considerable access to Willmore Wilderness Park you will retain the wilderness character of this area if it is controlled carefully?

MRS. STEPHENSON:

Yes. We are proposing access up to the Muddywater River which is approximately 18 miles in from the gates of the Smoky. There is a road at the moment which could be upgraded. It only goes a short distance into the park, but if vehicles, trailers or campers could go that far, they could continue from there by horse or on foot. We're not suggesting that the whole park should be opened up but there should be additional access to allow more people to get in.

MR. KINISKY:

You say you know from experience that no permanent damage is done by strip mining. What leads you to believe there will be no problems with surface mining?

MRS. STEPHENSON:

I'm not an expert, but I have gone over the area where McIntyre Porcupine is presently working. We know that McIntyre, with its experimental program, can reclaim this land. We hope that with proper legislation this will be done and we feel the government will make sure that this area is reclaimed.

MR. KINISKY:

You say you support the hatchery proposed for this area. Are you aware that the provincial government has built a giant hatchery in the Calgary area to supply its own fisheries? There will be some competition from the government's own operation.

MRS. STEPHENSON:

Yes. But we feel this area is ideal for a fish hatchery.

MR. KINISKY:

Will this supply fish to the commercial market or will it be just a game fish hatchery?

MRS. STEPHENSON:

I think it will do both. As far as I know it is a three stage plant. It will stock the lakes and the streams in the province as well as enter the commercial market.

MR. KINISKY:

With regard to the road between Grande Cache and Grande Prairie, does your organization favour the westerly route?

MRS. STEPHENSON:

Definitely.

MR. KINISKY:

How long will the road be?

MRS. STEPHENSON:

I think it will be about 145 miles.

MR. KINISKY:

You also referred to a road which will lead into the Kakwa Falls area. Would that spur line be approximately 20 miles?

MRS. STEPHENSON:

Yes, about that length.

MR. DOWLING:

You spoke about further access to the Willmore Wilderness Park and I believe you also mentioned another park outside of the Willmore. Is that correct?

MRS. STEPHENSON:

I said that we could perhaps become incorporated in a park, maybe taking part of the Willmore Wilderness Park and making it into a provincial park which would encircle Grande Cache. We have the basic facilities now.

MR. DOWLING:

Does the West Yellowhead Development Council support that view?

MRS. STEPHENSON:

Yes.

MR. DOWLING:

Have the Jasper Chamber of Commerce, town councils in Hinton and Edson, as well as the Board of Administrators in Grande Cache considered getting governmental representatives from the provincial level on this group?

MRS. STEPHENSON:

Not at the present time. The cabinet ministers are aware of the formation of our development council.

MR. DOWLING:

Has the West Yellowhead Development Council had any discussions with respect to the possibility of establishing a highway into British Columbia? I believe the pass goes from the north of Mount Sir Alexander.

MRS. STEPHENSON:

Not at present. This council is a very young group. We were formed less than three months ago so we're still working out our objectives.

MR. DOWLING:

You speak also of Rocky Mountain Rainbow Limited. Will this company be presenting a brief to us?

MRS. STEPHENSON:

We understand they will be presenting their brief to you.

MR. DOWLING:

Are they local people?

MRS. STEPHENSON:

No, they're from around Rocky Mountain House and Edmonton.

MR. DOWLING:

What makes this area so unique for this type of operation?

MRS. STEPHENSON:

They have a power plant down at the mine and will utilize its warmer water. They have the blessings of Alberta Power and McIntyre Porcupine for this development. We see it as a tourist facility as well as providing game fish for the province and the export of dressed fish.

MR. DOWLING:

If you want to enlarge the economic base of Grande Cache, does the town council see a limit to which you can go?

MRS. STEPHENSON:

We haven't gone that far. We are just starting to attract tourists into this area and we're working on long-term goals. We want to get started and feel we need a base for this town other than one industry. We have to diversify for the viability of our community.

MR. DOWLING:

What possible improvements might there be in communications or in relationships between the town and other governmental bodies in the Province of Alberta? What are your greatest difficulties in communicating with people who can do things for you?

MRS. STEPHENSON:

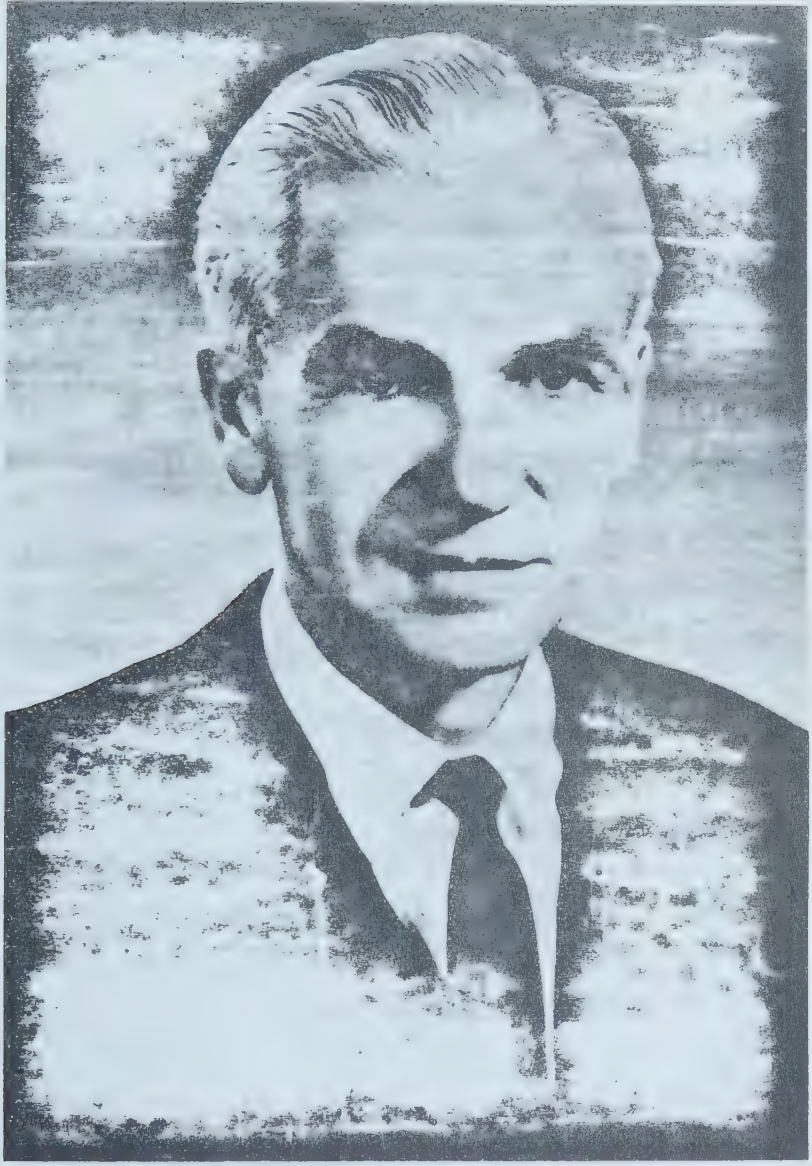
One of our greatest problems at the moment is with the Department of Highways. Our prime difficulty is trying to establish the importance to us of our road link. With it we would no longer be a dead-end community and people would come up from the south.

As far as roads are concerned, we see this area from Hinton to Grande Prairie as a gap from the States right through to the north. It's the missing link, if you like. One of our major concerns is that this gap should be filled by a good road which would be beneficial for the whole province and not just this area alone.

MR. DOWLING:

It seems to me that we're building the Kananaskis Highway in the wrong area.

# WILLMORE WILDERNESS PARK



"The broad basic problem is whether or not the Government should condone and encourage the industrialization of Alberta at the expense of the rivers, the air and the countryside of our Province through a lack of policy and foresight, or should we endeavor to promote industrialization in an orderly manner which will bring the greatest possible benefits to all the people in Alberta without necessitating the improper exploitation of our greatest natural resources - which are the air we breathe and the water and the soil."

Public address by Norman Willmore to the Edson community on February 25, 1955.

1033-3

# THE WILLMORE WILDERNESS PARK

The Alberta Wilderness Association
1973

This Book is Dedicated to the Late Honourable Norman A. Willmore

Mr. Willmore was born in Fessenden, North Dakota and came to Canada as a teenager with his parents in 1915. He received his education in Edmonton, Alberta and later moved to Edson, Alberta to work as a clothing and shoe merchant. Mr. Willmore began his public life as a member of the Edson town council in 1942 and two years later was elected to the Alberta Legislature as Social Credit member for Edson. After winning five subsequent elections, he was appointed Minister of Industries and Labour in the Hon. E. C. Manning's Cabinet. He remained in that position until appointed to the position of Minister of Lands and Forests on August 2, 1955. Mr. Willmore died in an automobile accident en route to deliver a speech at Robb, Alberta on February 3, 1965.

In the words of Premier Manning, Mr. Willmore was "an extremely capable and conscientious Minister who gave many years of his life to public service in the province."

During his Lands and Forests portfolio, Mr. Willmore directed the administration of the natural resources of the Province with the exception of mines and minerals. He was opposed to the upland bird game farms, an issue of considerable debate in the 1960's. In 1964, he set up the Hunter Training Program and Wildlife Damage Scheme, the latter a program which allowed farmers to apply for compensation for damage to crops by wild animals and waterfowl.

The Alberta Legislature gave approval to Bill 102 in 1965 to amend the Wilderness Provincial Park Act. In doing so, the 1,775 square mile Park near Grande Cache was renamed in memory of the late Norman Willmore, Minister of Lands and Forests. It is now known as the Willmore Wilderness Park.

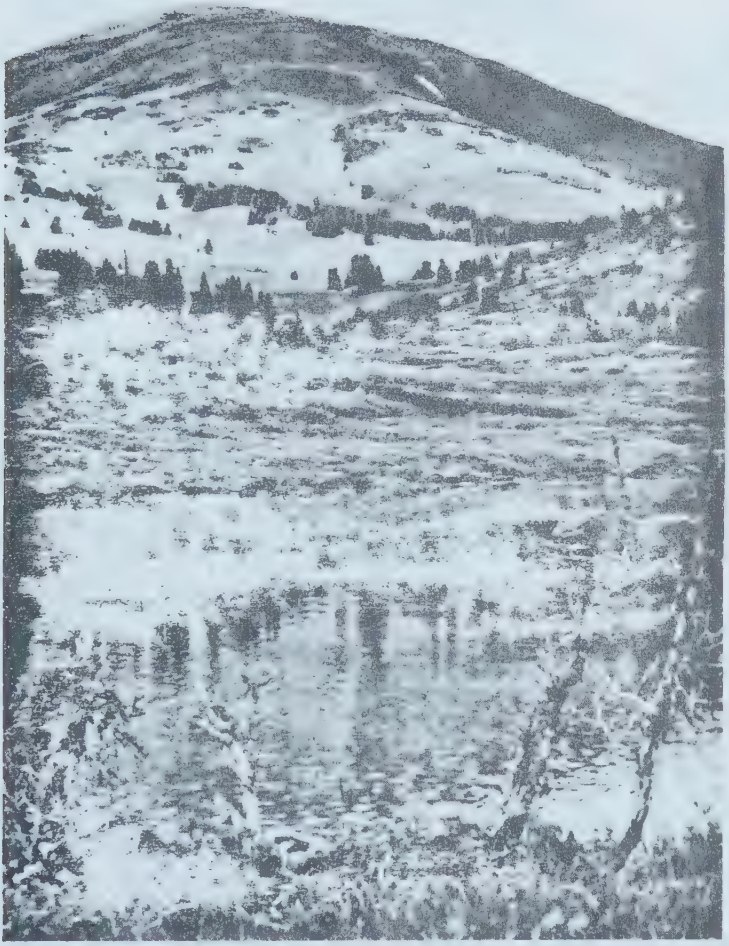
## INTRODUCTION

The Willmore Wilderness Park, Alberta's last great mountain wilderness, stands today at a crossroads. Protected by an Act which in reality gives no protection, it has been reduced in size twice since its inception in 1959. Notwithstanding its dedication for wilderness recreation, exploration reservations and leases for coal and oil and gas have been let. In the past, seismic trails have intruded into almost every drainage, but spring floods and time are healing these scars. Inappropriate resource development still threatens the Willmore. Potential coal exploitation competes with bighorn sheep and Rocky Mountain goats for the critical winter pastures of the Persimmon, Hoff and Berland Ranges.

In the following pages an attempt will be made to introduce the reader to the Willmore and to its outstanding wildland recreation values. Extensively used by non-Albertans in the past, it is only now becoming popular among Albertans for summer hiking and trail-riding, and autumn hunting trips. The Willmore is a wilderness intended for trips of a week or longer, a wilderness that still provides a challenge to even the most experienced backcountry traveller.

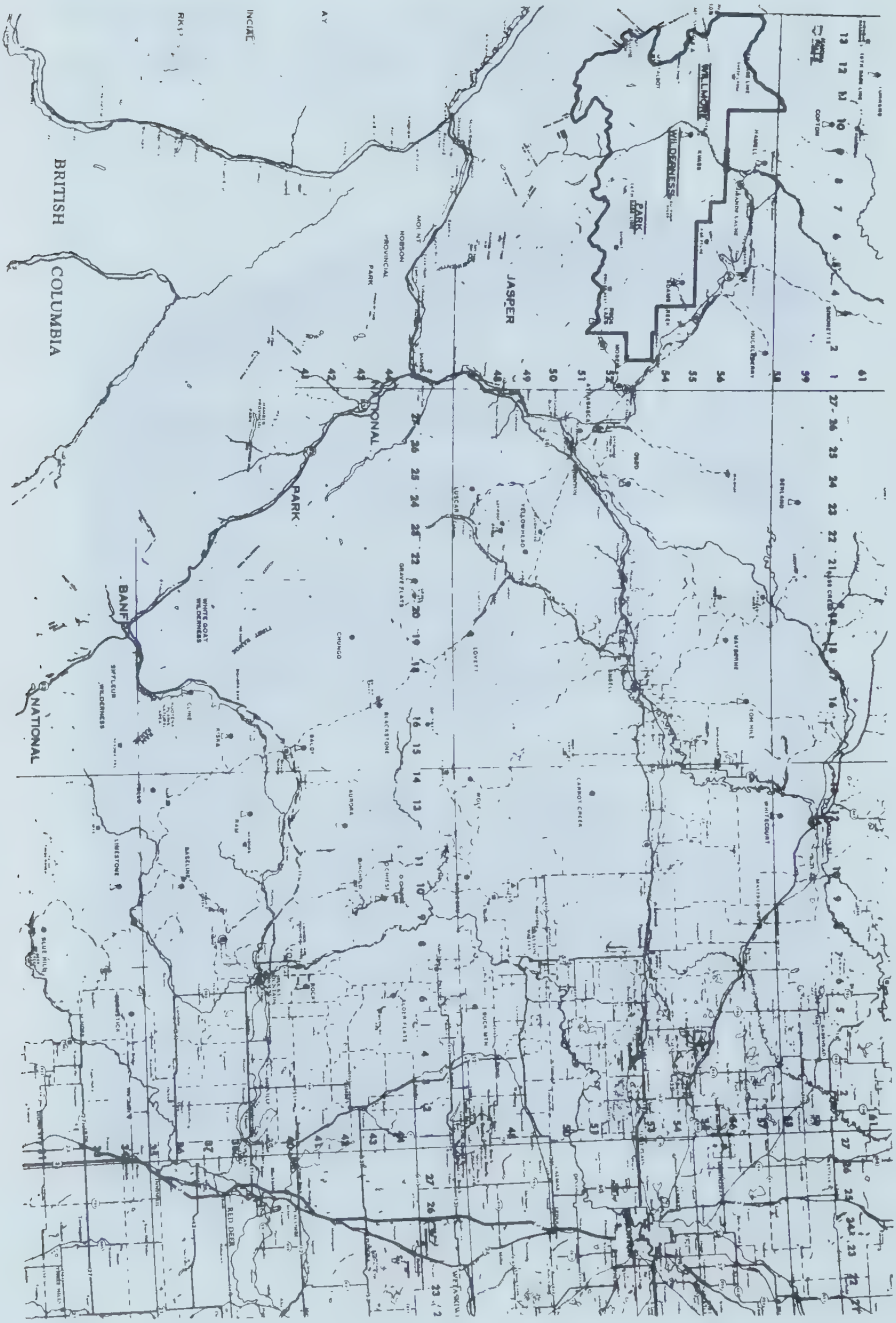
Willmore Wilderness Park is a "wilderness in trouble". As the adage goes, "development can lose battle after battle, and always return again; wilderness can lose only once". Public support is imperative if the Willmore is to be protected against continued demands for inappropriate resource development. Only when the Act is amended to require public debate in the Legislative Assembly of Alberta for any changes in use or boundaries can we be assured that the Willmore will have adequate protection. Your interest and support for this protection should be expressed not only at the forthcoming East Slope Hearings,

but as well to your Member of the Legislative Assembly and the Minister of Lands and Forests, The Honourable Dr. Allan A. Warrack, Edmonton, Alberta.



Anne Bronson

The tranquility of wilderness
near Eagle's Nest Pass


BRITISH
COLUMBIA
JASPER
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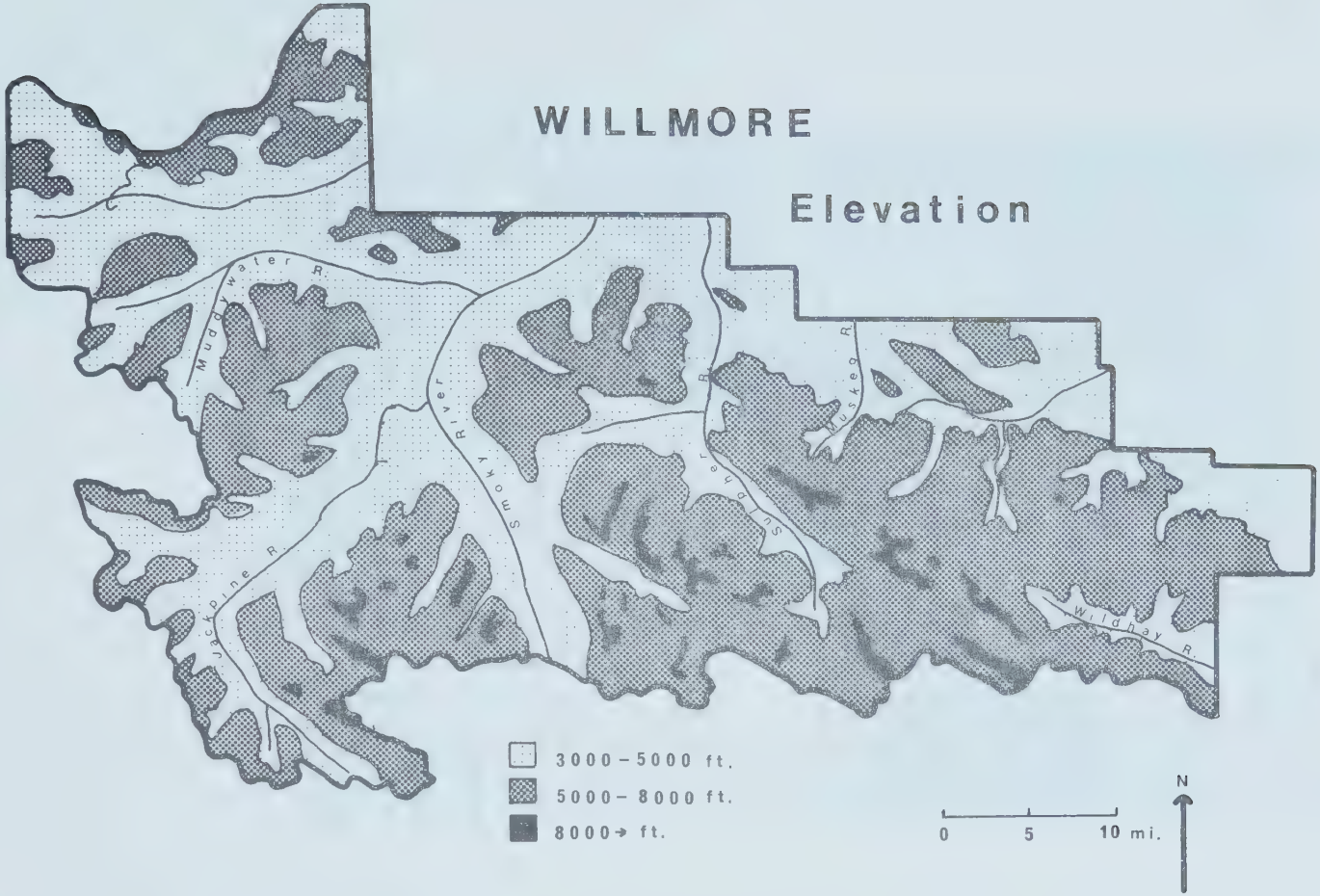
PARK
BANFF
NATIONAL
WILLMORE
WILDERNESS
PARK
RED DEER

# WILLMORE

## Elevation



# HUMAN HISTORY

## *EARLY CIVILIZATION*

The history of early man in the Rocky Mountains extends back about 12,000 years but is well documented for only the last 8,000 years in the foothills north to the Athabasca area. Recent archaeological finds indicate that man occupied the Willmore area for at least 10,000 years without interruption. The exact origin of these early inhabitants is unknown although they were likely Athabascan speakers such as the Selkoni or Beaver Indians of today. The archaeological records do show clearly, however, that their migrations and general life style were ones of a culture well adapted to the rugged Rocky Mountain environment, its extreme climate and seasons, and uncertain game supply.

The basic living pattern of the people was to spend the long, cold winters in the lower valleys or adjacent slopes where snow cover was diminished by the chinook winds. For the same reason this was where the game animals such as bighorn sheep and buffalo overwintered. In the spring the camps were moved into the higher alpine meadows and river valleys where game and fish were plentiful and insects less bothersome. In autumn, blizzards in the high country once again forced a retreat, first into the high valleys and eventually to the lower elevations and sheltered areas where winter could be endured. Many of these early inhabitants remained in the foothills south of the Peace River country leaving present-day descendant families.

D. Shackleton

Man has occupied the Willmore for at least 10,000 years. Bighorn sheep that wintered on the open slopes where chinook winds kept snow cover to a minimum were an important source of food and clothing for the early Indians.

*FUR TRADE*

In more recent times the fur-trading industry has had the greatest impact on the human use and development of the Willmore area, most of which is recorded in published and unpublished journals of the Hudson's Bay Company. A letter from Colin Robertson, a clerk at St. Mary's House (an early HBCo. post at the junction of the Smoky and Peace Rivers) mentions that the "Smoking River", or Smoky River as its known today, was a well-used trade route for the fur freeman. Apparently the northern traders laden with lynx, marten and beaver pelts walked or rode horses up the Smoky River to Grande Cache, so named because of its sizeable fur depot. They then continued up the Smoky Valley to Jasper House via today's Jasper National Park, or over into the Holmes River (or Beaver River as it was called then) and McBride on route to Tete Jaune Cache. Depending upon the price offered for the furs, the freeman sometimes veered southeast to the Lac St. Anne post into the Edmonton District.

The Hudson's Bay Company frequently considered abandoning the Jasper House post south of the Willmore area for a number of reasons. The difficult overland route to the Edmonton District was frequently cause enough for the freeman in the Willmore area to travel north to the Dunvegan post and Grande Prairie in the Peace River District. Here they could also get higher prices than those allowed in Lac St. Anne. Another problem was trade in the Jasper area from the west side of the mountains. In 1882 most opposition traders apparently travelled to Jasper. Six years later it was complained that these Jasper freemen would sell the furs of Willmore area for cash at Lac St. Anne and, despite a large inventory of goods at the post specifically stocked to entice them, would travel west again to Kamloops, B.C. to purchase goods and supplies.

In 1889 Pierre Grey (after whom is named a small lake in the Grande Cache-Willmore area), a trader at Jasper, drew particularly strong complaints in HBCo. journals because he sold only enough furs to cover his outstanding debts at Lac St. Anne. He then went on to Edmonton where he sold the remaining furs to the highest bidder and bought his supplies from the lowest bidder (neither of which was generally the HBCo.). Pierre Grey was indeed a very successful freeman and entrepeneur and in one particular year (1921-1922), he took over 100 pack horses loaded with furs (26 of which carried only valuable marten pelts) from the Willmore trappers.

*HUNTING, EXPLORATION AND ADVENTURE*

Hoofed animals as well as those creatures bearing valuable furs were also a useful resource commodity for travellers, traders and early residents of the Willmore area alike. George Simpson's diary mentions, for instance, that while travelling up the Athabasca River valley in 1824, he relied upon the abundance of both small and large game. Surprisingly enough, some of his game meat may have been wood buffalo. Legend passed down by Vicent Wanyandi, an old Iroquois who settled early in Grande Cache, tells that the Athabasca River Indians, employed by the Northwest Fur Company and later the Hudson's Bay Company, came to Rock Lake via the Snake Indian River to hunt moose and buffalo. Even more reliable is John Franklin's mention of a Mr. Drummond, a botanist who collected specimens in the vicinity of the Willmore. Drummond wrote:

> "On the 21st (August 1826) we found two young porcupines, which were shared amongst the party, and two or three day afterwards, a few fine trout were

> caught. We arrived in the Smoking River on the 5th of September where the hunter killed two sheep, and a period was put to our abstinence, for before the sheep were eaten, he shot several buffaloes."[1]

In 1910 and 1911, Professor J.N. Colie and Mr. A.L. Mumm (after whom two creeks are named in the eastern Willmore) accompanied by two other members of the Alpine Club of London made lengthy expeditions into the Continental Divide, west of the Smoky, for the purpose of pioneering, mountaineering and adventure. Their first ascents of a number of difficult peaks have been documented in old journals of the Alpine Club.

In the years following 1912, Fred Brewster, a well-known Alberta guide from Jasper Park and F. Prescott Fay, an explorer and naturalist, rode the trails and valleys of the Smoky River and Sheep Creek both for personal adventure and scientific discovery. The record of remote sheet herds, primitive trails, spectacular waterfalls and a good collection of birds and mammals for the American National Museum were a few of their rewards and accomplishments.[2]

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[1] Narrative of a Second Expedition to the Shores of the Polar Sea in the Year 1825, 1826 by John Franklin, page 211, London, 1828.

[2] Journal of S. Prescott Fay of 1914 Expeditions Hunting Sheep and other Big Game Between the Yellowhead Pass and the Peace River (along the Continental Divide of the Rocky Mountains in Alberta and British Columbia). Available at Glenbow Archives, Calgary, Alberta.

Photo Courtesy of Alberta Glenbow Institute

George Brewster and Dick Harrington unsaddle horses on the Old Smoky Trail in October 1911

*TRAILS*

Four trails used by the Indians, explorers and fur traders are still important today, both to men and animals. The "Lower Trail" parallels more or less the present Grande Cache highway, from Old Entrance to Muskeg Creek and Grande Cache. Evan Moberly, originally of Jasper House, moved his family and friends along with 200 head of livestock (mostly horses) and machinery over this trail in 1910. Moberly (after whom is named a creek in eastern Willmore) and the Findlay, Joachim and Swift families had originally homesteaded in the Athabasca Valley in the late 1800's and were forced to move to the Willmore area when the government decided a National Park was to be created. There is a mention in J.G. MacGregor's book "Pack Saddles to Tete Jaune Cache" of the establishment of a winter road in 1912 from Prairie Creek (Hinton) to the mining claims on the Smoky River. It was probably this "Lower Trail" that was followed.

The "Indian Trail" connected Old Entrance and Grande Cache by a more direct route through the intervening mountain passes and river valleys. The trail began up the valley of Solomon Creek (named after the late Solomon Caraconte, an Iroquois settler of Old Jasper House) situated at the north end of Brule Lake. The route continued northwest to Rock Lake, up the North Fork of the Wildhay River to Eagle's Nest Summit. It crossed both forks of the Berland River before passing along Muskeg River to A la Peche Lake and Grande Cache.

There is a third trail known as the "Mountain Trail" which went in the same general direction as the other two but penetrated the Persimmon Range even further. This route was commonly used by the early outfitters in the Willmore area and later by government forestry agencies. It also started

from Old Entrance, passed up Solomon Creek to Rock Lake and Eagle's Nest Summit, but then forked southwest through the picturesque Eagle's Nest Pass, up Rock Creek, past Mile 58 Summit and on down the Sulphur River to Big Grave Flats. Here the traveller had two route choices - north to Grande Cache or west via Kvass Creek to the Smoky River. At the Smoky the trail again divided - north to Grande Cache or west to Sheep Creek, and the British Columbia border through good hunting. This latter trail required the sometimes dangerous fording of the Smoky River at Clarke's Crossing.

The fourth trail was said to start at Grande Cache and it obviously was a trading and communication route used by travellers to and from the Peace River Country. It proceeded south to the upper reaches of the Smoky River. One route branches west over Bess Pass - from this point the route through British Columbia is vague. Some freemen went south, following the Continental Divide into the Jasper area.

*GRAVES OF REMEMBERED SETTLERS*

There are a few grave sites of early residents who pioneered and homesteaded in the Willmore area. The grave of the mother of Adam Joachim, born in 1837 of an Iroquois woman, lies near Adams Creek on a big river flat about four miles below the old Forestry cabin. She died soon after the Joachim's move from the Athabasca Valley. At Sunset Meadows on the North Fork of the Berland River is the marked grave of the sister of Dolphus Agnes, another early settler of Grande Cache. A baby Delorme girl is buried at "Little Grave Flats" near the forks of the Sulphur River while farther down the same river at "Big Grave Flats" is buried Pierre Caraconte, the Iroquois relative of Solomon. Caraconte's grave is fashioned out

From Brewster's Wall

Len Jeck

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of logs and stone, piled above the ground in the form of a coffin. The ground was frozen at the time of his death. George Hargreaves, an outfitter from Jackman, B.C., died on a hunting trip into the rugged Sheep Creek area in the fall of 1937 and is buried at a headwater tributary called Casket Creek. Legend has it that at the start of this trip he insisted on packing along a shovel saying "You never knew when someone might die".

*EARLY GOVERNMENT ADMINISTRATION*

In 1910, the federal government created the Athabasca Forest Reserve, an area of about 4,000 square miles extending from Prairie Creek north to the 15th base line and west to the British Columbia boundary. In 1912, James Shand-Harvey was hired by the government in the capacity of District Ranger; it was his duty to patrol the district of Rock Lake and Grande Cache. There were no forestry cabins nor any recognized forestry trails up until this time. However, over the succeeding years cabins were built, trails improved, bridges built and even 65 miles of telephone line installed between Old Entrance and Muskeg Cabin.

The major Forestry cabins, a few of which still stand in an abandoned state, were the Headquarters Cabin at Old Entrance, one at Brule, and ones within the Willmore Wilderness Park at Rock Lake Eagle's Nest, Mile 58, Big Grave Flats, Sheep Creek, Adams Creek, Muskeg Creek, Little Berland River, Moberly Creek and to the north at A la Peche and Grande Cache. This entire area was under the charge of one man, Mr. Shand-Harvey, until about 1940 when an Assistant Ranger was added. During the hunting season from 1935 until World War II, a Mounted Policeman of the Game Patrol Branch assisted in supervising the Willmore area and could be expected to drop in on outfitt-

ers at anytime of the day or night on routine and licence checks.

With the addition of the Assistant Ranger, Shand-Harvey's territory was somewhat reduced, the cabin at Clarke's Crossing being his most distant. Clarke's Crossing was so named because of an enterprising outfitter from Old Entrance, Stan Clarke, who took a flat-bottomed river boat, piece by piece, to the Smoky River by pack horse. He bolted the vessel together and could then ferry his hunters and supplies across the river while the horses swam. In later years, the government also provided a boat for the opposite bank in order to permit crossing from both directions.

Even with two men, the Rangers were on the trail the entire summer and fall months seeing that trails were kept clear of dead-fall and rock, bridges repaired and campgrounds serviced for the hunting season. In addition they undertook game counts, maintained cabins, watched for fires, checked the telephone line and also patrolled throughout the hunting season. Up until 1968, the Alberta Forest Service performed many of these same tasks. Since that time, except for fire patrols, the area has been essentially ignored; trail maintenance, where necessary being accomplished by outfitters.

L. Jeck

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Hunting parties, here seen in Gunsight Pass between Hardscrabble and Rockslide Creeks, have traditionally made the most use of the Willmore.

*OUTFITTING AND TRAPPING*

The Willmore area once supported many outfitters and guides; many more in number than are guiding dudes of today. Guided hunting was most popular immediately after World War II at which time approximately twenty outfitters hunted the area. This number however included the outfitters from the Jasper-Brule-Entrance area, others from more northern and southern districts, as well as four outfitters from British Columbia who obtained special permits to hunt in Alberta.

During the winter, the Willmore area supported a lucrative trapping industry and sometimes involved seventeen to eighteen trappers. In the Depression years, an average trapline could gross the ambitious trapper between $1,500 and $2,000. The post-war period, 1945 to 1948, showed even higher prices in the European markets; one of the larger lines is said to have produced fifteen thousand dollars in one season. After 1950, lower fur prices caused a decline in the industry, a decline which has lasted until only recently. In the early 1970's, a few traplines in the Willmore area once more yielded a fur harvest of lynx and beaver in the thousands of dollars.

*MINING AND QUARRYING*

Other uses of the area's natural resources have been mineral extractions, both within the Willmore Wilderness Park and near-by. Prior to the establishment of the area as a provincial park (1959), commitments esisted for mineral exploration and development. These commitments were honored, and as well, additional leases and reservations were granted to applicants in following years, notwithstanding its dedication as a "Wilderness Provincial Park". The principle minerals of interest are coal, gypsum, oil and gas.

The Act of April 7, 1959, established the area as a Wilderness Provincial Park of 2,149 square miles of mountain peaks, glaciers, alpine meadows and broad river valleys. Prior to establishment, this area was part of the Athabasca Forest and the few roads, trails and service cabins were closed to general public. The administration of the area continues to be the responsibility of the Alberta Forest Service rather than the Provincial Parks Division.

Regrettably, the original 2,149 square mile park has undergone two reductions in size (1963 and 1965) to its present area of 1,775 square miles. The steep mountain slopes and alpine meadows of Grande Mountain and Mount Stearn in the north and the Rock Lake area in the east were removed from Provincial Park status for the purpose of coal exploration and extraction. The McIntyre-Porcupine Mine at Grande Cache and the town of Grande Cache are situated on what used to be Wilderness Park. These lands were once the overwintering range of bighorn sheep and elk from the Smoky River, Roddy, and Malcolm Creek vicinity.

In 1965, the remaining 1,775 square miles was renamed the Willmore Wilderness Park in memory of Norman Willmore, who as Minister of Lands and Forests (1955-1965), promoted the establishment of the Wilderness Park for the recreational enjoyment of Albertans.

L. Jeck

Rock columns like the one near Dinosaur Pass are part of the unique scenery of the Willmore.

## GEOLOGY

The Willmore Wilderness Park is an area of northwest trending mountain ranges with many peaks exceeding 8,000 feet. Elevation and local relief increase as one goes westward. The summit of Resthaven Mountain (10,165') is the highest peak while the valley of the Smoky River where it leaves the northern boundary of the Willmore is less than 3,200 feet. The total local relief in the area is thus about 7,000 feet.

Geological surveys have not been completed for most of the Willmore area but maps and reports prepared by the Geological Survey of Canada are available for the northern portion of Jasper National Park (Mountjoy, 1962) and for the foothills to the north and east (Irish, 1965). General information from these sources can be extrapolated across the Willmore area.

Three physiographic units can be recognized: the Foothills, the Front Ranges and the Main Ranges of the Rocky Mountains. Although these units are not always easily defined or separable from each other, there are characteristic rock types and patterns of folding and faulting. The differences in turn affect both local scenery and the potential for mineral extraction in the area.

The Foothills unit is poorly represented and occupies only the eastern corner of the Willmore. South of the Muskeg River it is bounded by the Berland and Hoff Ranges on the southwest while north of the river the boundary is the more westerly Persimmon Range. The Foothills are under-

L. Jeck

The diverse scenery in the Willmore is a product of different rock types, complex folding and faulting and erosion by running water and glacial ice. In Eagle's Nest Pass, resistant Paleozoic limestones which were thrust-faulted into a vertical position, have eroded to form rugged mountain peaks.

L. Jeck

Southwest dipping strata resulting from thrust-faulting are typical of the Front Ranges in the Willmore.

lain by rocks of Mesozoic[1] age which have been folded and faulted into a number of northwesterly trending ridges and steep-sided valleys. Strata in the Foothills are primarily sandstone, shale and conglomerate which are easily eroded; thus the ridges have a rounded appearance. Of special interest is the Luscar formation which contains a number of coal seams. This coal-bearing formation extends westward into the Front Ranges with exposures along the Hoff, Berland and Persimmon Ranges.

The Front Ranges of the Rocky Mountains is the main physiographic unit in the Willmore extending southwest from the Foothills to approximately French, Famm and Hardscrabble creeks. The Front Ranges are characteristically Paleozoic limestones and dolomites which have been thrust-faulted into a number of northwest-trending mountain ranges. Each mountain range represents a major thrust sheet which has been displaced to the northeast resulting in a steep northeast facing scarp. Dip slopes to the southwest are generally less steep. For example the Persimmon Range is part of the Persimmon Thrust Sheet which has been pushed about 8,000 feet to the northeast along the Rocky Pass Fault. Resistant Paleozoic limestones and dolomites which were thrust over softer Mesozoic strata are exposed along the scarp and, in places, form cliffs up to 1,500 feet high. The general structure of these large thrust sheets is complicated by the presence of numerous smaller faults

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[1] The geological time scale is divided into four major periods:
Cenezoic - 0 to 70 million years ago
Paleozoic - 220 to 600 million years ago
Mesozoic - 70 to 220 million years ago
Praterozoic - 600 million years and older

L. Jeck

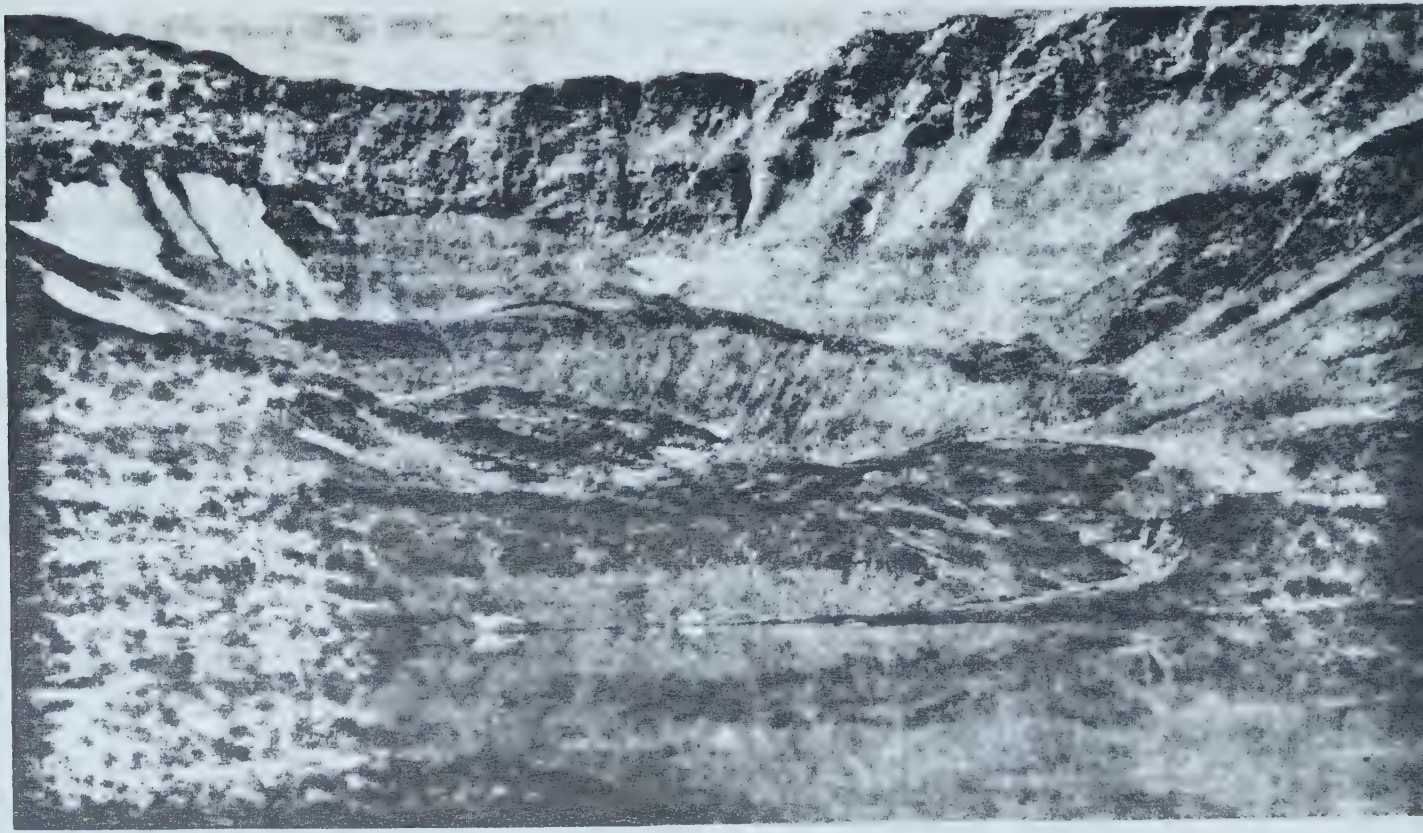
Typical glaciated country in the Willmore with U-shaped valleys and stepped or "pater-noster" lakes.

and folds formed prior to and subsequent to faulting. This complex of folding and faulting has produced numerous anticlines, synclines and other structures which contribute to the spectacular scenery of the Front Ranges.

The Main Ranges of the Rockies cover the remainder of the Willmore. They are characterized by essentially flat-lying Paleozoic and Praterozoic quartzites and carbonates which have been uplifted a great vertical distance. The actual amount of uplift in the Willmore is not known but it has been suggested that the Main Ranges west of Banff were uplifted a vertical distance of over two miles above the corresponding strata in the Front Ranges and over five miles above similar rocks of the Alberta Syncline below the Prairies. As a result of this great uplift the highest and most impressive mountains occur in the Main Ranges where the oldest rocks are exposed.

The complex lithology and patterns of folding and faulting in the three physiographic units have been acted upon by the erosive agents of running water and glacial ice to produce the spectacular scenery we now find in the Willmore Wilderness Park. Although glacial erosion and deposition is responsible for the detailed form of most of the landscape features, the basic patterns of mountain ridges and stream valleys are a result of stream action over approximately 50 million years - between uplift of the Rockies and the onset of glaciation. During the Pleistocene, glacial ice covered much of the Willmore. The initial ice sheet covered the area to an elevation of at least 7,100 feet as evidenced by large erratics (boulders left by glaciers). These ice sheets had little erosive power and acted only to smooth some of the ridge tops. As the ice sheets receded, alpine valley glaciers occupied the major river valleys. These alpine glaciers

gouged-out many of the valleys to their present U-shapes, truncated the spurs of intersecting ridges, and created such erosion landforms as cirques (glacial basins), arrets (sharp ridges), cols (glacial passes), and horns (sharp peaks). Most of the larger valleys such as those of Sheep Creek, Muddywater, Jackpine and Smoky Rivers have these characteristic U-shaped profiles. In some places these valleys were deepened, leaving the tributaries as hanging valleys with frequent waterfalls. Small cirques are common at the head-waters of the tributary streams that originate near the Continental Divide. Some cirques still contain small glaciers or permanent snow patches while others are occupied by small lakes called tarns. Alpine glaciers also blanketed many of the lower slopes with till, deposited small moraines along the valley sides and filled the valley bottoms with outwash. Present day streams such as the Smoky River are actively reworking the glacial deposits, leaving the coarse material as gravel bars and the silt-sized material as flood plains.



Steep walled cirques occupied by small tarn lakes are a common feature at the headwaters of many streams that originate near the Continental Divide.

*VEGETATION*

The Willmore Wilderness Park has a number of vegetation types which enhance its scenic diversity. Included are spruce-fir and pine forests, willow-sedge meadows, open grassland, aspen, alpine meadow, sparsely vegetated rock barrens and unvegetated areas of rock, glacial ice, and permanent snowfield. Zonation of vegetation occurs primarily on an elevation basis since growing conditions become more severe with increasing altitude. Some zonation also occurs from east to west because of precipitation differences; areas near the Continental Divide receiving more than 60 inches of precipitation per year, while dry rain-shadow locations in the eastern part of the Willmore receiving less than 20 inches. The conditions of the eastern Willmore are intensified by strong southwesterly chinook winds.

The spruce-fir forests are dominated by white, or Engelmann spruce and alpine fir. They are the climax vegetation type over most of the area. These forests have an almost continuous tree cover and as a result cool, moist conditions prevail on the forest floor. Ground vegetation consists of several species of feather moss and lichens, and shade tolerant herbs such as bunchberry, twinflower, wintergreen and horsetail. Important shrubs are Labrador tea, bog cranberry and grouseberry. Several species of lichens grow on the lower branches of mature or old trees and form a staple winter food for woodland caribou.

Forest fires have greatly reduced the area covered by spruce-fir forests and are responsible for the widespread occurrence of fire-successional stands of lodgepole pine. Much of the Willmore was swept by fires around 1930 and today many of the valleys and slopes are blanketed with dense stands of lodgepole pine. These 40 year-old trees are now about 50 feet high. A lodgepole pine

G. McNabb

Fire successional stands of lodgepole pine have replaced many of the spruce-fir forests following the widespread forest fires of the 1930's. Fires are an integral part of the wilderness environment renewing pioneer successional species important to wildlife.

stand is much drier than the spruce-fir forest and thus ground vegetation is different. Grass, principally hairy wild rye, is important, as well as herbs such as wild strawberry, yarrow, star-flowered Solomon's-seal, arnica and Indian paint-brush. Shrubs such as wild rose, bearberry, juniper and buffalo-berry are abundant below the pine canopy.

The continuity of forest cover is interrupted along the poorly-drained flood plains of the Smoky, Jackpine and Muddywater Rivers, along Sheep Creek and other smaller streams as well. Here, small willows, bog birth, sedges, horse-tails and rushes occur in abundance. Black spruce and sphagnum moss bogs are common in the wetter areas. Shrubs in the bog areas provide browse for moose, elk and deer.

In the eastern part of the Willmore, southwest-facing slopes are exposed to intense sunlight and strong winds which together create quite a dry environment. Upper slopes are covered by open grasslands of June grass, wheat grass, blue grass and various sedges. Pasture sage, pussy-toes, loco-weed, cinquefoil, saskatoon, wild rose and other typical prairie species grow throughout the grasslands. On lower slopes the grasslands are gradually being replaced by stands of aspen poplar with an understory of shrubs dominated by wild rose, shrubby cinquefoil and saskatoon. Many of the exposed slopes remain free of snow throughout the winter because of the influence of strong chinook winds and are heavily used as winter range by herds of bighorn sheep and goat.

Between 6,200 and 6,500 feet the continuous tree line ends and scattered clumps of dwarfed alpine fir and Engelmann spruce dot the mountain sides. Between these islands of trees the ground is covered with shrubs like dwarf willows, white, yellow and purple heathers and grouse-berry.

A. Landals

Bunch berry is a common flower of the forested parts of the Willmore. In the fall the bright red berries provide food for grouse and other birds.

Alpine meadows of grasses, sedges, herbs and mosses have developed in moist areas. Here many small but showy alpine flowers - red, pink and yellow Indian paint-brush, elephant head pedicularis, mountain marigold, chalice-flower, glove-flower, saxifrage, buttercup and mountain sorrel - bloom in the short growing season. The lush growth of the alpine meadows provides important summer range for mountain caribou.

At higher elevations growing conditions become too severe for all but the hardiest plants and rock barrens, or alpine tundra, occur. Only dwarf

R. Pharis

Mosses, lichens, and other dwarf plants characterize the alpine tundra.

plants such as moss campion, mountain avens, mosses and lichens are able to survive. The sparsely-vegetated mountain slopes are inhabited only by marmots, mountain goats, pikas (whose closest living relative is the elephant) and the hardy white-tailed ptarmigan.

At the very highest elevations (above 7,500') only the lichens which can colonize on rock and sedges which grow in sheltered pockets of soil are found in any abundance. The severe climate produces harsh growing conditions which eliminate other plant species.

R. Pharis

The Willmore's alpine meadows, besides allowing easy travel and providing beautiful scenery, are important summer range for caribou.

WILDLIFE

Not only are most Albertans unaware of the traditional significance of the Willmore's wildlife to the Indian residents of the past, early explorers, settlers and trappers, but they also do not realize the importance, even today, of the Willmore as an undisturbed environment for many different species of animals, including the somewhat rare Rocky Mountain goat, grizzly and woodland caribou. Outside of the National Parks to the south, no other part in Alberta offers such a diversity of habitat and climate. These in turn provide food, shelter and refuge for our magnificant native woodland caribou, grizzly bear, bighorn sheep, mountain goat and cougar.

A. Landals

The Willmore contains about one-half of Alberta's mountain goats, a species threatened with extinction in the province.

D. Shackleton

Ruffed grouse, spruce grouse, blue grouse and white-tailed ptarmigan are year-round residents of the Willmore.

The key to the importance of the Willmore to wildlife is its many hundreds of square miles of crucial winter range. Biologists state that about 90 percent of elk and sheep populations spent the critical winter months on only 10 percent of their total range. Only certain ranges are suitable as winter habitat; the snow-blown ridges where warm chinook winds and light snowfall allow the animals to easily reach nutritious forage. The Willmore is well-endowed with this special combination of physical and climatic factors. Only the western portion, along the Continental Divide, lacks good winter range, being covered with many feet of snow during winter and early spring. The absence of chinooks and the high elevation make for long periods of extreme cold and such conditions make impossible the procurement of food and even movement during the winter.

However, in the summer, these western slopes and high valleys especially those of the Jackpine and Smoky Rivers and Fetherstonhaugh Creek provide ideal forage for migrating animals such as woodland caribou and elk. The alpine and subalpine

slopes are covered by a luxuriant growth of grasses, sedges and forbs. Caribou migrate from the northeast and the bighorn sheep may move in from the adjacent mountains to the east.

For sheep and goat, the Hoff, Berland and Persimmon ranges in the east, and Mt. Braithwaite, Mt. Russel, Mt. Stearn and Llama Mountain are the winter "hotspots" of animal concentration. The importance of these small areas is dramatically demonstrated if one realizes how sparsely the small bands of goat and sheep are distributed in Alberta. The Willmore Wilderness Park now contains at least 50 percent of Alberta's mountain goats and approximately 20 percent of the bighorn sheep.

The mountain goat may well be considered a "threatened species" in Alberta since population estimates range between 500 and 1,000 animals for the entire province. Our mountain goat populations have declined in recent years to alarmingly low levels; partly because of excessive hunting of individual herds and partly because of winter range disturbance. One example is illustrative. Before the appearance of strip-mining at Grande Cache a survey showed that approximately 100 goats roamed the southwest-facing cliffs and alpine slopes of Mount Hamell. Then, coincidental with the advent of industrial activity, the herd size dropped precipitously. For the past 5 years it has numbered only 15 animals.

Caribou migrate to the summer range in the western high meadows and alpine slopes near the Alberta-British Columbia border. Here, the estimated 300 mountain caribou of the Willmore constitute the only significant herd outside of Jasper National Park. These specialized creatures are well-adapted to deep snow, having a hoof which splays out, acting somewhat like a snowshoe. During January and February they frequent the subalpine forest

in the Caw Creek area (north of the Willmore boundary) and the Smoky River drainage. Of prime importance to caribou, are old-growth forests with abundant tree lichens and ground mosses. A hanging variety of lichen called "old man's beard" is a favourite food source, and replaces the grasses and forbs hidden under the winter's snow. Forest fires or logging of these old-growth forests will decimate caribou winter range, possibly resulting in severe winter-kill if alternative old-growth stands are not available. The influence of proposed clearcutting of old-growth spruce forests by Procter and Gamble Cellulose Ltd. in the areas south and west of Grande Prairie may well eliminate critical winter range of the far-ranging mountain caribou. Given this, the Willmore Wilderness Park and Jasper National Park may become the last refuge for the mountain caribou herds of Alberta.

Elk, valuable as both a trophy animal (to the photographer and the hunter), and as meat are concentrated in the broad valleys of the Smoky River near Mount Stearn, Sheep Creek, and the Wildhay River near Rock Lake. Herd sizes within the Willmore number about 500. Moose and mule deer as well as elk are a common sight to the rider or walker who travels the trails or follows the streams, even in the summer. Low shrubs and willows along streambanks are ideal browse for moose and deer whereas the elk graze on grasses and forbs.

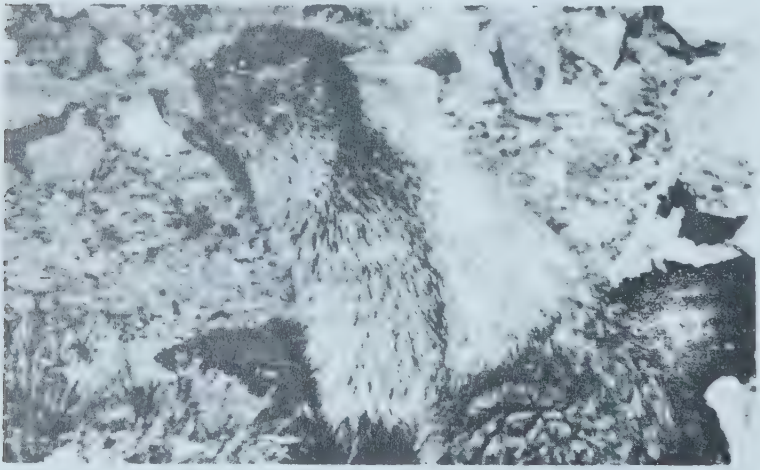
The Sheep Creek drainage has historically contained a large number of grizzly bears and in 1965 the population density was estimated to be one grizzly per 10 square miles, an exceedingly high density for a creature whose habits demand large areas of undisturbed range. Today, numerous grizzly sightings are made in headwaters of Muskeg Creek and the Berland River. It appears, though, that many of the Sheep Creek grizzlies may have moved north

S. Herrero

Although beautiful, and enticing as photographic subjects, bears with cubs can be dangerous and should not be approached.

to the Kakwa area. Black bears are found everywhere and travellers in the Willmore must take the proper precautions; careful garbage disposal being the most important.

Wolves are a continual source of frustration to the biologist because of their unpredictable movements, thus preventing an accurate delineation of their range. In the Willmore area, wolves are often spotted in the north near Mount Stearn, Famm Creek and along Sheep Creek, and are usually associated with the wintering herds of elk, moose and mule deer along the valleys and river courses. Wilderness travellers should be aware that heavy human usage of a hiking or riding trail in vicinity of a denning site may force the wolf pair to relocate and subject their pups to unnecessary danger during the transfer.



A. Landals

Although many people tend to regard only large animals as important in wilderness areas, marmots, pikas, squirrels, porcupines and other small mammals are far more abundant and provide frequent enjoyment for visitors.

D. Shackleton

Canada jays are quickly attracted to backcountry camps in search of a handout.

Although the Willmore's larger wild animals are always a thrill to see in their natural surroundings, the smaller mammals are likely to be more common companions of the hiker or horseman, since these creatures are usually more tolerant of human activities. The pika and hoary marmot are easily recognized, if only from their distinct high-pitched whistles which seem to float about the rock slides and talus slopes where they live. The red squirrel, chipmunk and weasel are the common dwellers of the wooded stands at lower elevations. Fox, lynx, coyote and marten are numerous in the Willmore, but are rarely observed except in the traps of the local trapper. Wolverine are not uncommon, and display little fear of humans.

Birds similar to those found in the National Parks are common to the Willmore. Ruffed and spruce grouse frequently startle the hiker when they flush right in front of his face. The white-tailed ptarmagin is a master of protective coloration - white in the winter, and an "invisible mottled brown" when the chicks lead the hen about

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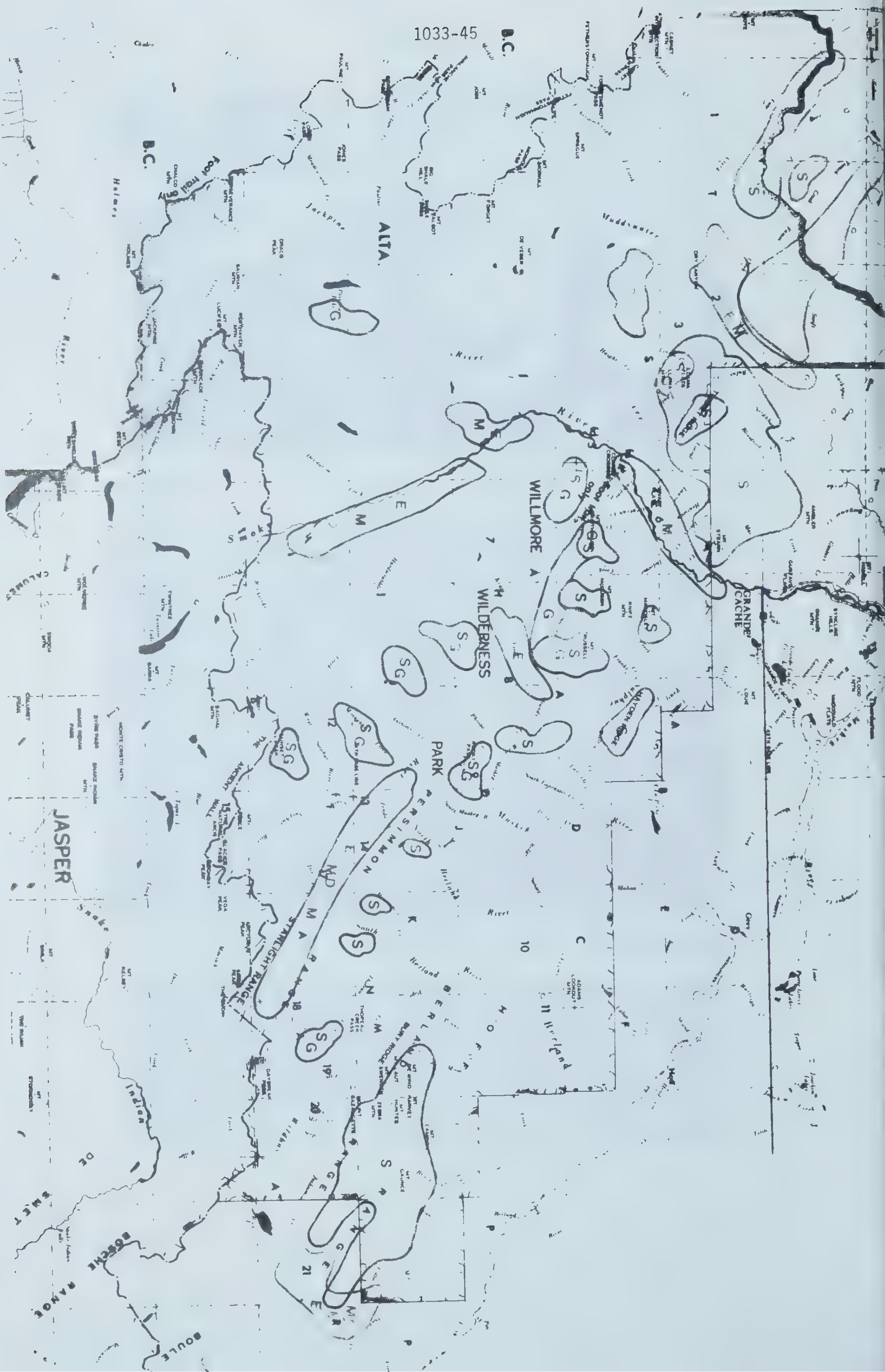

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WILLMORE
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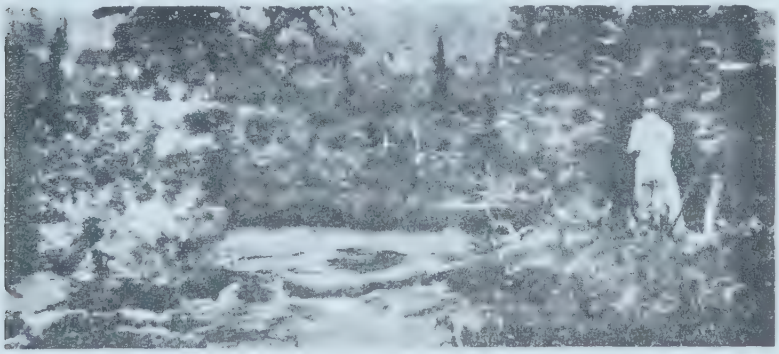
STARLIGHT RANGE

the alpine and subalpine slopes in the spring. Eagles and other birds of prey are often sighted high above the valley floors using the mountain air currents. A few migratory waterfowl such as Canada geese, wood ducks and dabblers use the lakes of the Willmore for nesting and raising their brood.

The fishery of the Willmore is not significant, either in terms of number of fish-filled lakes and streams or the number of sport fish species available for the angler's creel and frying pan. The Dolly Varden char, or "bull trout", is the most common catch because of its large number and voracious appetite. Dolly Varden, Rocky Mountain white-fish, Arctic grayling and rainbow trout comprise the main fishery of the major river systems: Sheep Creek, Jackpine, Smoky, Sulphur, Muskeg, Berland and Wildhay Rivers. The remainder of the watercourses provide poor fish habitat because of their fluctuating water levels, lack of escape pools or bank cover, and heavy silt loads during spring melt and seasonal rains. They also have rather low productivity in terms of invertebrates, the main diet of trout. Only Rock Lake just outside the eastern boundary provides good lake angling for brook trout and white fish.



R. Pharis

A. Landals

Mule deer are common in the eastern Willmore but are scarce in the west because of heavy snowfall.

D. Shackleton

Elk are plentiful in the Willmore, especially along the valley of the Smoky River where nutritious grasses provide winter forage.

*RECREATION*

Past recreational use of the Willmore Wilderness Park has been heavily oriented toward outfitting or private horse party use, especially in the autumn for hunting parties seeking trophy animals such as bighorn sheep, mountain goat, grizzly bear, caribou and elk. Summer outfitting is only now becoming popular as are summer horse and hiking trips by individuals. Commercial outfitting for hunting remains important and in 1972 thirteen outfitters operated in the area. A number of big game animals were taken, including 14 trophy rams.

V. Geist

Magnificent bighorn rams have been taken in the Willmore since the early days of hunting in Alberta and are still the most important trophy animal in the area.

The increased interest in pleasure trail riding allowed four outfitters to operate throughout July and August of 1972. They cater mostly to family groups and take them into the backcountry for short trips or extended holidays. The average cost of $25.00 per person per day for an outfitted trip in the summer includes everything necessary for a pleasurable holiday. Most of the people taking advantage of these services are from the United States or from Eastern Canada, but interest by Albertans is increasing. Besides sight-seeing and relaxation, fishing for Dolly Varden trout in the numerous streams is a favourite pastime.

An important future use of the Willmore by outfitters may be catering to organized youth groups or conservation clubs who wish to spend long periods in the backcountry. Although these people might hike in, supplies would be brought in by pack-horse so that semi-permanent base camps could be established, from which day hiking might proceed. Similarly, outfitters will undoubtedly be called upon to supply parties of mountain climbers that will be attracted by Resthaven and Saurian Mountains, Mount Pauline and other peaks along the Continental Divide.

Backcountry camping and long distance hiking is rapidly increasing in popularity as evidenced by trends in trail registration in Jasper National Park and in the U.S. Wilderness areas. During the 5 year period, 1967 to 1971, trail registrations increased by 400 percent in Jasper to a total of almost 11,000. Although a number of these trail registrations were for weekend trips, most people camped for several nights and a few parties stayed in remote areas for up to a month. Of particular interest are the increasing numbers of people travelling the 120 mile "North Boundary" section of the Great Divide Trail in northern Jasper Park, adjacent to the Willmore. In 1971 approximately 150 parties made this journey. As popularity of

A. Bronson

Pack horses facilitate the establishment of base camps which permit lengthy stays in the backcountry.

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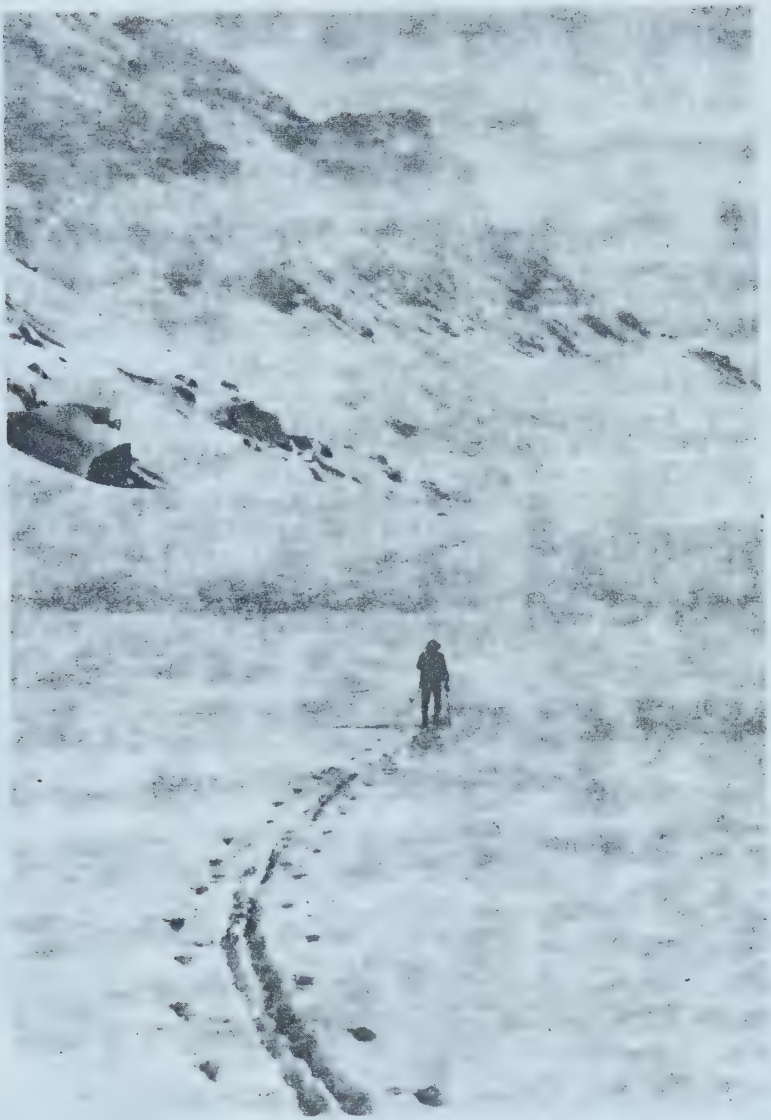
this route increases, numbers of people can be expected to continue northward into the Willmore in the quest of new country for high adventure. Five trails connect the Great Divide Trail with the Willmore. A short trail of about eight miles leaves the Great Divide Trail near Willow Creek and exits at the popular Rock Lake campsite to the east of the Willmore Wilderness. Trails also leave Jasper along Rock Creek, Blue Creek and Smoky River providing a number of interesting circuits. The westernmost route leaves Jasper along Chown Creek, crosses Bess Pass and Jackpine Pass, then continues northward along the Continental Divide. This is a logical extension of the Great Divide Trail that hiking enthusiasts envision as stretching into the Yukon and Alaska and connecting with the proposed Continental Divide Trail that traverses the United States from the Canadian border in Waterton Lakes National Park to Mexico.

Ski touring is also experiencing a recent upsurge in popularity. During the 5 year period ending in 1971, the number of persons ski touring in Jasper National Park increased by 650 percent. As the numbers of cross-country skiers increase, the trails in the Willmore will experience more winter use. This mushrooming popularity of hiking and ski touring is likely to continue because of increased leisure time and the desire to get away from our crowded urban environment. Ready availability of light weight, relatively inexpensive backpacking equipment and warm down insulated clothing and sleeping bags is also a major factor in extending backcountry use to all seasons of the year.

The Willmore Wilderness is ideally suited to hiking, trail riding and ski touring because of the existing network of trails. Besides the five trails that enter from Jasper Park there are routes along most of the streams which provide



D. Wales

Many of the trails in the Willmore are ideally suited to ski touring, a sport that is rapidly gaining popularity in Alberta.

# INDEX TO RECREATION MAP

## Trails, Paths, and Roads

A Mountain Trail
B A la Peche Trail (renamed portion of Indian Trail)
B Adams Creek Trail
D Muskeg River Trail (renamed portion of Indian Trail)
E Mahan Creek Trail
F Cabin Creek Trail
G Grave Falts Trail
H Kvass Creek Trail
I Hardscrabble Trail
J Snow Trail (renamed portion of Indian Trail)
K Indian Trail
L Berland River Trail
M Pope Creek Trail
N Persimmon Creek Trail (renamed portion of Indian Trail)
P Evan Trail
R Collie Creek Trail
S Dry Canyon Trail
T Sheep Creek Trail

## Sites of Interest

1. Grave of George Hargreaves
2. Sulphur springs
3. Dry canyon
4. Clark's Crossing and Cache
5. The Swim
6. Kvass Flats
7. Winnifred Flats
8. Big Grave Flats
9. Mount Leonard
10. Grave of Dolphus Agnes' sister
11. Grave of Adam Joachim's mother
12. Dinosaur or Totem Pole Pass
13. Little Grave Flats
14. Trapper's Grave
15. The Natural Arch
16. Brewster's Wall
17. Mile 58 cabin
18. Eagle's Nest Pass
19. Old Coal Mine Cabins
20. Old Coal Mine Cabins
21. Site of buffalo jump

We apologize for the poor quality of the maps. A second attempt will be made to obtain a better quality base map, trail map, and map showing points of interest, and to print all of them on one page, hopefully with different colors. Should you wish a free copy of the second printing of these maps, please drop us a postcard: Alberta Wilderness Association, Box 6398, Station D, Calgary, Alberta.

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B.C.
ALTA.
WILLMORE
WILDERNESS
PARK
GRANDE CACHE
JASPER
STARLIGHT RANGE
PERSIMMON
BERLAND

GRANDE CACHE
WILLMORE
WILDERNESS
PARK
B.C.
ALTA.
B.C.
JASPER
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LEGEND
HARD SURFACE ALL WEATHER
LOOSE OR STABILIZED SURFACE (MAIN ROUTE) ALL WEATHER
LOOSE OR STABILIZED SURFACE (SECONDARY ROUTE)
LOOSE SURFACE DRY WEATHER
COAL EXPLORATION FORESTRY ACCESS OR LOGGING ROAD
TRAIL
FOOT TRAIL
CABIN
FIRE LOOKOUT
AIRSTRIP USABLE
AIRSTRIP CONDITION UNKNOWN
CAMPGROUND WITH SHELTER
GRANDE CACHE
WILLMORE
WILDERNESS
PARK
JASPER
PERSIMMON
RANGE
STARLIGHT RANGE
HOFF
BERLAND
RANGE
BURY RIDGE
HAYDEN RIDGE
THE ANCIENT WALL
BOSCHE RANGE
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access to the Willmore from all directions. Access to the northern Willmore can be gained from the town of Grande Cache which is connected with Highway 16 by an 80 mile gravel road that is scheduled for paving in the near future. The second focal point of vehicle access to the Willmore is the Alberta Forest Service campsite at Rock Lake, reached by a good gravel road from the Grande Cache highway. This campsite has developed facilities for about 30 units with adequate room for expansion. Travel into the Willmore must, of course, take place on foot or by horse as all use of motorized vehicles is prohibited.

Access can also be gained from the Berland or Muskeg Rivers. The roads are in fair condition for vehicles with reasonable clearance. Every valley system and most passes in the eastern portion of the Willmore have good horse trails and many interesting routes for cross-country travel exist along the high ridges and over many of saddles and unnamed passes. Good campsites occur along all of the major streams, and the cross-country traveller can always find water and a bit of timber for shelter in the upper valleys bordering on the alpine.

Access from B.C. can be gained from Mt. Robson Provincial Park via Jasper Park and from the Holmes (Beaver) River logging road. In this latter case, a way trail to the Continental Divide region near the headwaters of Chacoll Creek (see Recreation Map) exists. Hiking along the Continental Divide on the western border of the Willmore is an experience not to be forgotten soon. Below timberline on the west lies a virtual rain forest, and the absence of trails and abundance of deadfall and brush alder make travel within B.C. regions rigorous to say the least. However, if one stays high and follows the old Divide Trail (where it can be found), travel into the Upper Kakwa of British Columbia is feasible on

this Great Divide route. From there the traveller can proceed down the Kakwa, Torrens, or Narraway Rivers, or back into the Sheep Creek drainage of the Willmore via Trench and Famm Creeks.

Travel in the western portion of the Willmore off the Continental Divide is arduous. Crossings on the Smoky are swimming fords for horses, and only in late summer or autumn would the foot traveller be able to cross. Even then, only crossing at select places where the Smoky is heavily braided would be feasible, and fords would be chest deep.

The wildland recreation potential of the Willmore is high, and future development on more accessible Forest Reserve lands of facility-oriented recreation or mineral and timber resources can only enhance the value of this, Alberta's "last great wilderness". Statutory protection for the Willmore Wilderness Park must be forthcoming.

L. Jeck

Hunting parties, here seen travelling up the Sulphur River to Glacier Pass, have traditionally made the most use of the Willmore.

## CLIMATE

The rugged topography of the Willmore profoundly influences both long term climatic conditions and day to day weather patterns. Local climate conditions are quite variable and almost unpredictable. This variance in local climate influences vegetation patterns and wildlife distribution throughout the Willmore. It is also important in terms of comfort and safety of the backcountry traveller and in no small part controls the type of recreational use to which the Willmore can be put.

Climate in the Willmore is generally cool and the risk of freezing temperatures increases with elevation. Although the July-September period is mild (mean maximum temperatures in the mid 60's), freezing temperatures may occur at any time. For example, the Willow Creek area just south of the Willmore experiences frost on about one-quarter of the nights during July-September. At high elevation and along the Continental Divide warm clothing and down sleeping bags are mandatory for the hiker and horse rider throughout the year.

R. Pharis

In the high country along the Divide snow patches persist into August making warm clothing and down sleeping bags a necessity.

The short snow-free period for the high elevation country restricts use of many of the passes such as Jackpine and Shale and the high trails to July, August and early September in most years. Even during these months snow may be a physical barrier to both man and horse.

Precipitation also influences recreational use of the Willmore. The eastern part of the Willmore is relatively dry, receiving only about 20 inches of precipitation per year. The western part of the area, however, receives about 60 inches and thus rain gear is always advisable. Rainfall along the low, poorly drained trails of the Muskeg and Berland Rivers often creates muddy conditions that are unpleasant to the hiker. Swarms of mosquitoes and biting flies plague both people and horses,

although by August insects are less of a problem, especially in the high country.

Climate directly influences stream flow; a factor which is of prime importance to travellers in the Willmore since few of the streams are bridged. Mountain streamflow is quite variable but three main flow regimes can be recognized. These are streamflow caused by spring snowmelt, by rainfall runoff, and by the melting of glacial ice.

Streams such as Muskeg, Berland and Wildhay Rivers which receive most of their water from spring snowmelt can be expected to peak in May. The time of this peak flow and its volume of discharge are controlled by winter snowfall and spring temperatures. These and similar streams in the eastern portion of the Willmore may be easily forded in late summer but are a definite risk to early spring hikers.

Streams like the Smoky River that derive their greatest flow from glacial melt will generally peak in July. As mentioned in the recreation section, fording of the Smoky is difficult throughout the summer and at peak flows the Smoky is almost impossible to cross, even for horses.

Intense rainstorms can produce high flow peaks of short duration at any time in the summer, leaving the hiker stranded between major tributaries of the larger rivers for a day or longer, or necessitating long detours until water levels subside. Mumm Creek, Seep Creek and similar deeply incised intermittent streams flowing from rocky areas with very little storage capacity can become rushing torrents within a very short time. Many of the smaller streams in the high country of the Willmore fall into this category.

R. Pharis

Drying rain soaked clothing over a campfire is often necessary as showers are frequent throughout the summer.

ECONOMIC VALUES

How does one place a dollar value on the recreation resources of the Willmore area, its diverse landforms, unique vegetation types, endangered wildlife, pristine landscape and wilderness aesthetics? Alberta's recreation demands and needs are obviously increasing as its citizens gain additional leisure time and money. At the same time our recreational resources become fewer, both in terms of supply and in quality. The Willmore Wilderness Park offers a true wilderness environment, a contrast with mechanized civilization for modern man - a rare commodity today, even in Alberta. As such, the recreational value of the area cannot be measured just by personal benefits of the user (although these benefits must be taken into account), but must be viewed as a benefit to our entire society and its future generations through the preservation of a unique and scarce commodity.

What are some of the personal benefits which accrue to the user of this 1700 odd square miles of contrast, solitude, and wilderness? They range from the physical challenge of "practising the primitive art of wilderness travel" to the thrill of a trout's strike in a quiet pool of the Muskeg River, to the high adventure of a stalk along the open ridges of the Persimmon Range, to the stories and tales spun around the campfire. They last long after the trip has ended, and may be visible to society in a more relaxed behaviour and increased productivity of the "re-created individual" after his return to civilization. These benefits extend to the "anticipatory pleasure that the individual, and indeed entire family will derive in planning their next (or first) wilderness adventure into the Willmore, a pleasure that all of those who have spread out a map before the fireplace on a cold and snowy winter night will not soon forget. And finally,

the vicarous pleasure of the Canadian who is satisfied just knowing that the Willmore still exists as an inviolate part of North America's wilderness heritage must not be discounted. The above are benefits which currently defy the assignment of dollar values, although some enterprising economist of the future may well succeed in their quantization. For the time being, though, they must continue to exist, and perhaps they should always exist, as benefits of inestimable value.

Competing resource uses for our wildlands take many forms. Obvious uses are timber, coal, oil, gas, and quartz mineral exploitation, and dollar values can readily be attached to the cost and benefits of these. A similar situation exists with regard to commercial outfitting, guiding, and trapping. Other uses are more speculative (such as backcountry travel for pleasure) as mentioned above, and have defied the assignment of a dollar value.

The Willmore has been, and is now subject to demands from the natural resource industries. Even though some of the benefits of a wildland recreation classification may be inestimable, it should still be possible to discuss the costs and benefits of certain compatible uses (e.g. outfitting, guiding, trapping) and contrast them with those of the extractive resource industries and facility-oriented recreation facilities, given the necessary information about past trends and current economic practices. An attempt will be made to do this in the following paragraphs.

*COSTS AND BENEFITS OF RETENTION OF THE WILLMORE AS A RECREATIONAL WILDERNESS*

There are certain costs borne by government in the administration of any crown lands, although in the past for Alberta's de facto wilderness these costs

have been negligible (with the exception of fire detection and suppression) since trail maintenance and backcountry patrols were discontinued some years ago. We can expect an increase in administrative costs concomitant with increasing interest in the Willmore for wilderness recreation. Signing, trail maintenance, bridging, and backcountry patrols by rangers will become routine expenses in the future operation of the Willmore Wilderness Park. However, if the tendency to over-regulate were resisted and if all users of the Willmore were made aware of any necessary regulations, then self-policing with minimal enforcement personnel should be effective as long as user density remains low. Increased regulation (and thus administrative costs) may have to accompany increased usage, but then an economic analysis of the dollars spent within the Province by the additional wilderness users should provide a rationale for these increased government expenditures.

Fire protection costs for the Willmore could be reduced significantly by eliminating fire partols and allowing forest fires to run their course in those areas of the Willmore not immediately adjacent to commercial stands of timber outside the boundaries. In no case should heavy machinery be used within the Willmore for fire-fighting. It is estimated that the Alberta Forest Service spends more in fire protection of its forests than it derives from the sale of timber or fiber from these lands. In many cases fire suppression efforts have been useless because of the vagaries of weather. This whole subject should be the object of serious study by the Forest Service given the significant expense of forest fire protection to the province (in excess of $6 million/annum), the environmental damage resulting from suppression, and the positive role of wildfire in providing high quality range for wildlife. Wildfire in the Willmore is a natural phenomenon and

man can seldom be other than a passive observer when it occurs.

Resource economists can predict certain benefits from recreational use of the Willmore, and where the user travels with a commercial outfitter, these benefits can be accurately accounted for. In addition to this direct economic approach one can also determine a "Willingness to Pay" model (i.e. how much would each user be willing to pay for the experience). Of most value, however, might be an "Opportunity Cost" model where one calculates the values (revenues) foregone by wilderness zoning. Here, facility-oriented recreation, forestry and coal "opportunities" may well have negative revenues. Gas and oil might, or might not be positive depending on whether all costs (real, reclamation and social) were included.

In the past outfitters have guided both summer travellers and dude hunters. Most come from the U.S. or E. Canada, in quest not only for the trophy sheep, mountain goat and caribou of the Willmore, but also in search of high adventure, of contrast, of escape from the hectic pace of modern life. These outfits are completely equipped and the dude is almost assured a memorable and satisfying experience.

The bighorn sheep is the most important animal to the guiding industry. In 1972, the Willmore supported almost one-third of the non-resident sheep permits issued by Alberta. About half of the hunters were successful in obtaining a trophy ram. Since each licenced non-resident hunter spends about $5,000 in Alberta for his hunt (outfitter fees, travel, game licence, food, etc.), the economic importance of trophy hunting is obvious. An approximate figure for the total revenue derived by Alberta from non-resident hunters in the Willmore, is $200,000 and this figure reflects only one season of sheep hunting. Likewise a few permits were issued in 1972 for mountain goat. The hunter

success was poor because of the late season, cold weather and hazardous travel. Even so, a specific dollar return accrued to Alberta from resident hunters of mountain goat and woodland caribou within the Willmore.

Hunting is of course a consumptive use of the wildlife resource as opposed to photography or nature painting. However, big game hunting can be sustained year after year if wise principles of game management bases on accurate biological and census data are followed. Mountain goats, woodland caribou and, to a lesser degree, bighorn sheep are threatened species in much of Alberta. Under wise management the Willmore herds can continue to be cropped, but only if given a strict degree of protection which must include the preservation of their range. The dollar value of outfitted hunting should be added incentive to protect this range from inappropriate uses. Licence and fee income derived by the Province from the regulated harvest of trophy animals can more than pay for regulation and census costs, and can be used for habitat improvement and transplanting projects such as the one where live-trapped goats from Mount Hamel (near Grande Cache) were moved to traditional goat ranges in the south where populations had declined. These southern herds are now given complete protection and appear to be adapting to their new surroundings. Had the vast area of the Willmore not provided protection in the past from poaching and the indiscriminate hunting that seems to accompany road access, we would not have had this reservoir of mountain goat herds which are now being used to re-stock the depleted southern ranges.

In the past, summer has been a slack season for outfitting, but recently four outfitters have begun to promote summer trail-rides. On the average, each outfitter can fit about four trips into the months of July and August, and about 10

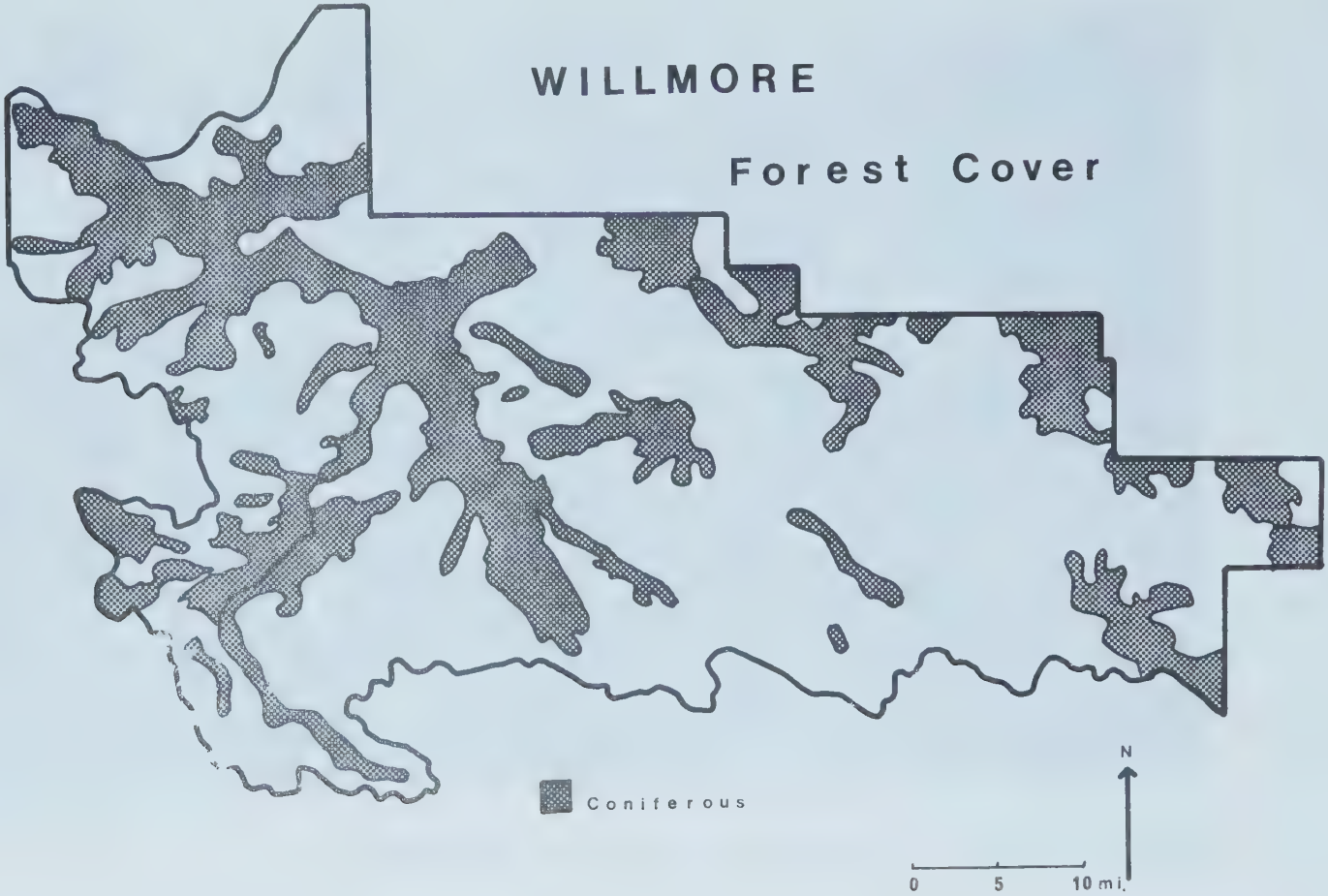
people are guided for each trip, which lasts ten days. The cost per person is thus about $250, and the gross income derived by these four outfitters should be in the order of about $40,000. For the traveller, the experience is most worthwhile, and the expense is moderate; food, equipment, shelter, instruction and guiding is included in the fee. These trips are popular and booked well in advance, clients most often being Americans and eastern Canadians, although Albertans are gradually learning of this unique opportunity for a guided wilderness trip into the unique backcountry of the Willmore. The potential for summer outfitting is largely untapped, especially when one considers the popularity of horse-assisted backcountry hiking (i.e. heavy supplies are carried by a few horses for a party of 20-25 hikers) which is becoming so popular in the wilderness areas of the U.S.A. A conservative estimate on the summer outfitting potential of the Willmore would be in the order of $250,000/annum. Together with the income derived from fall outfitting and hunting, the Willmore is worth at least $500,000/annum to the province from outfitting alone.

The fur resource of the Willmore was of paramount importance to the early settlers as mentioned previously. Although today's trapper rarely becomes wealthy from the traplines, the sale of marten, lynx and beaver pelts does comprise a significant portion of their annual income. During the 1971-1972 season, twelve registered traplines were held in the Willmore. However, it is apparent that these lines are not being worked to their full potential (i.e. the total value of furs was only $3,400 in 1972).

By far the most important animal to the trapper was the beaver, of which a total of 96 were taken for a value of $1,600. The skins of red squirrels and lynx grosses trappers $580 and $455 respectively. Ermine, marten, mink, muskrat, coyote and

D. Shackleton

Non-resident hunters in the Willmore Wilderness provide about $200,000 per year in the hope of bagging a trophy bighorn ram.

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wolverine comprised the remainder of the harvest. The highest income for any individual trapline was less than $800. There is no indication that fur-bearing animals are being over-trapped, and trapping could, in the future, contribute significantly to the income of local residents, especially the native people living near Grande Cache.

## WATER

To understand the importance and value of the watersheds, one must consider not only the headwaters or origin of the stream flow. The Smoky River and its major tributaries (Sulphur, Jackpine, Muddywater and Muskeg Rivers) are the main drainages of the Willmore Wilderness Park. Although the Smoky drainage begins high in the icefields and glaciers of the remote Continental Divide, it drains many miles of the Peace River country to the north. The Berland and Wildhay Rivers to the east flow into the Athabasca River. Eventually all streamflow originating in the Willmore flows into the Mackenzie River system.

The most important areas for water production are the alpine and subalpine meadows and the edges or margins of the high elevation forest stands. In particular the north and east-facing slopes are critical sites for winter and spring snow accumulation. Here the moderating influence of the sun and warm chinook winds is minimal. Snow which is blown from the bare alpine areas accumulates along the tree line or in minor depressions. Spring meltwater is slowly released from these accumulations into the streams and rivers long after the general snow pack has melted, thus helping to equalize streamflow. In general an extra foot of snow added to these high elevation snow fields will result in an additional week's runoff, a fact which may have real importance to spawning trout, nesting waterfowl, muskrats and beaver, or even pasture irrigation.

Use of the water resource differs from that of wildlife, forests, or coal in that the photographer, or hunter, or logger or miner, for example, utilizes the resource at its source, "in situ". In contrast streamflow from the high mountains of the Willmore is of paramount importance to downstream users as well as to the fisheries and wildlife of the area. Alberta's East Slope rivers are of importance as an industrial and domestic water supply, recreation, irrigation, hydroelectric power, transportation and wildlife habitat. These waters, of which we now have a surplus, are clean and of high quality. Today, most of us tend to take water for granted but this most essential resource may be, in the future, more precious than oil, gas, or other resources currently held to be of great value. Since the fragile alpine meadows and mountain slopes are the major source of water, the sensitive balance of soil and vegetative cover which regulates water release must be conserved by protection from unduly disruptive exploitation. Continued protection of the Willmore as a recreational wilderness can ensure the lasting quality of this most important resource.

## FORESTRY

Except for small areas near the eastern boundary, the lower reaches of the Jackpine, and some areas along the Smoky, the Willmore contains few forests of economic importance. Given the high cost of road construction, it is unlikely that the forests of the Smoky and Jackpine could be harvested at a profit. Rather, the stands of spruce, pine and aspen within the Willmore are of far greater value as wildlife habitat, watershed protection, and for the aesthetic benefit of the human user.

WILLMORE
Oil & Gas Rights
Lease
Reservation
Crown Reserves
N
0
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10 mi.

1033-74

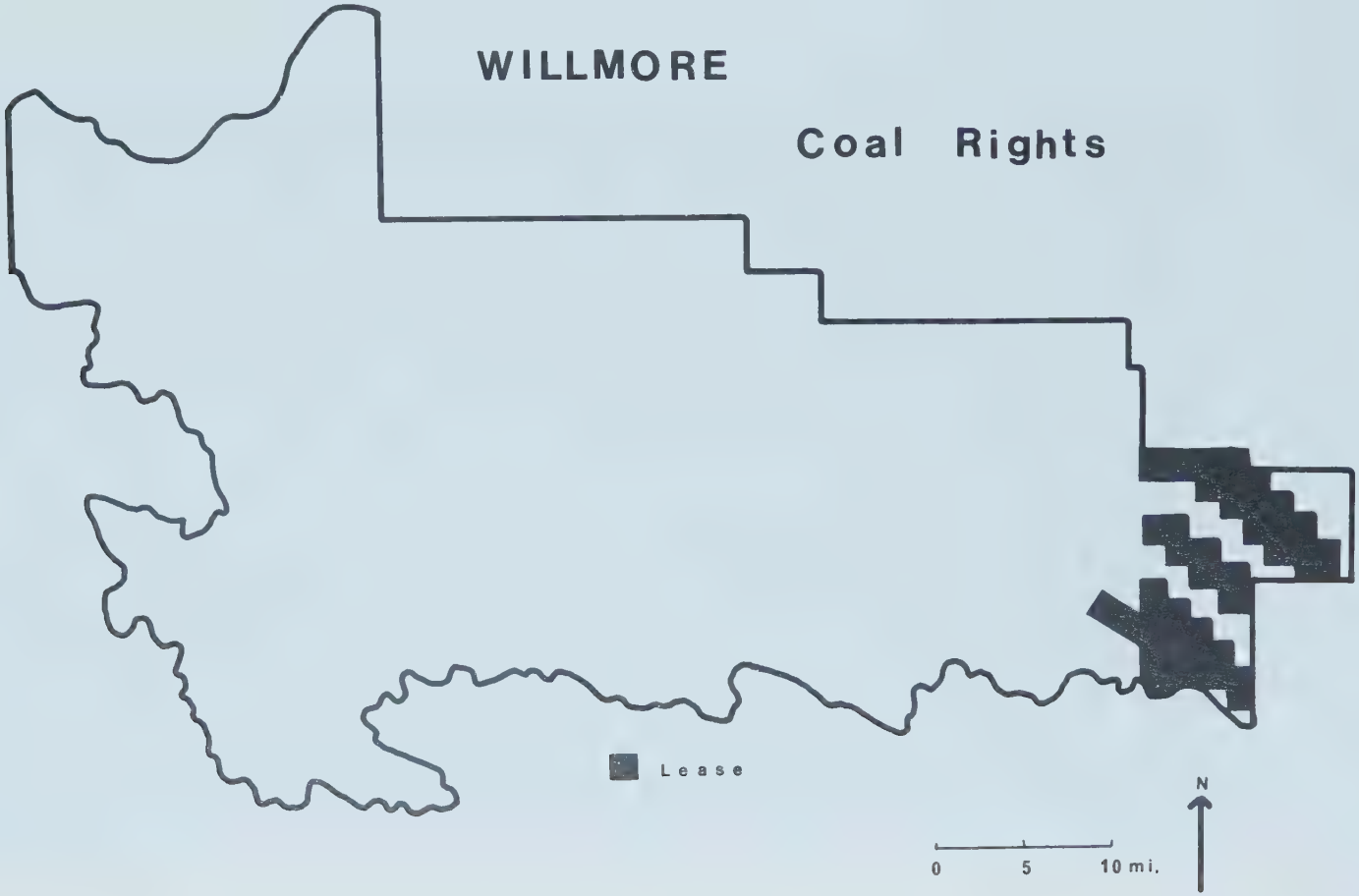
PETROLEUM AND NATURAL GAS: ITS COSTS AND BENEFITS TO THE WILLMORE

Only a relatively small portion of the Willmore Wilderness Park os committed under lease or reservation for the purpose of exploration, drilling and extraction of gas or oil by the geophysical industry. The geological pattern of the sedimentary fold and faults in the area suggests that natural gas is the more likely find rather than oil. The Crown petroleum and natural gas leases (issued for a period of 10 years) provide the holder with rights to the gas and oil. Four companies hold such leases, although Canadian Ashland Exploration Ltd. and Can Del Oil Ltd. are the more significant leasees in terms of Crown revenues. The four companies together hold about 12,600 acres under lease in the vicinity of Carson, Seep and Forty-One Mile Creeks and along the Wildhay River (Twp. 52, Rge. 3, W6). To date the revenues obtained by the Crown from fees and rentals have amounted to about $18,000. Two of the leases do not expire until 1982.

At least 50,000 acres of land near the Little Berland River, Moberly Creek and Collie Creek (Twp. 53, Rges. 2 and 3, W6) are covered by Crown petroleum and natural gas reservations. These dispositions convey the right to drill test wells for petroleum and natural gas and the right to produce them. If a well drilled under the reservation shows gas or oil in commercial quantities, a lease such as those mentioned in the preceding paragraph must be applied for within 3 months. The reservation duration is 4 months, renewable to a total of 5 years. In the transfer of a reservation to a lease, 50 percent of the land reverts back to the Crown as Crown Reserves.

The two reservation holders are Amoco Canada Petroleum Co. Ltd. and Pan Canada Petroleum Ltd. who together have supplied the Crown with a total

of $275,000 in the form of rentals, fees and bonuses. Only one well near Moberly Creek, unproductive and abandoned, has been drilled. To date, the exploration costs for the companies have amounted to approximately $250,000. Thus, certain dollar benefits (less administrative costs) have accrued to the province in the form of rentals, fees, bonuses, and of course income was generated by the exploration and drilling operations. In a rough comparison, one could say that the dollar value benefit was equivalent to that derived from two years of guiding and outfitting within the Willmore. But, what are the costs of this oil and gas exploration to the Willmore? No actual accounting can be made, but one can say with certainty that the aesthetics of wilderness travel along the Wildhay and other rivers has been damaged from the presence of the seismic road and debris left from the exploration. Some minor stream siltation undoubtedly occurred from the numerous creek and river crossings and from road-building up Collie and Moberly Creeks as well. Damage to big game habitat was probably not significent, but can the same be said with regard to disturbance of goat, sheep and grizzlies by work crews or others who illegally use these roads for hunting or poaching access? Albertans have become rather prosaic about past abuses by the geophysical industry during oil and gas exploration in our backcountry; we doubt that this attitude will carry forward to future operations,especially within the Willmore. Additional geophysical operations can only damage the future wildland recreation and commercial outfitting potential of the Willmore, and will probably result in abuse of the game resource in localized areas by poachers and hunters who enter illegally with vehicles. These are costs, both real and social, of geophysical exploration within an Alberta wilderness. They must be entered into the account when decisions on future geophysical development within the Willmore are made.




1033-77

COAL

Coal leases, like the reservations and leases for rights to oil and gas, cover only a small area of the eastern Willmore Wilderness Park. Unfortunately this same small area of land (which includes the Persimmon, Hoff and Berland ranges) is also held under a "natural lease" by approximately 25 percent of the Willmore's mountain goats (this is 10 to 12 percent of all the goats in the Province).

The coal leases, when mapped, form obvious shapes or patterns which coincide with the northwest trending seams of coal. The three main coal fields lie beneath the headwater basins of the Sulphur, Muskeg, Little Berland, Berland and Wildhay Rivers. The seams are commonly exposed and are readily accessible on the high slopes of the mountains, frequently at elevations in excess of 6,000 feet.

The most northern lease is held by McIntyre-Porcupine Mines Ltd. (who also operate open-pit and underground operations near the town of Grande Cache about 25 miles to the northwest). Their lease within the Willmore covers the Luscar formation. Bituminous coal mined by McIntyre outside the present boundaries of the Willmore (but within the original boundaries) is sent almost exclusively to Japanese markets where it is used in the coking of steel. McIntyre's Willmore lease has three mineable seams between 6 and 20 feet in thickness which may contain about 470 million tons of coal. However, only 9 percent (or 4 million tons) is at a depth which could be economically removed by strip mining.

The middle lease belongs to Manalta Coal Ltd., and is believed to contain 80 million tons of coal. However, most of this is not mineable by stripping. The southern coal lease is really two

leases, one held by McIntyre-Porcupine and the larger of the two by Denison Mines. The two leases taken together have an estimated 500 million tons of coal. Denison Mines apparently wishes to conduct further exploration (involving extensive road building) on its holdings with the intention of commencing an underground mining operation. The reserves of the specific area in question are estimated at 20 million tons of recoverable coal.

A mining technique which may be considered and attempted by Denison is known as "hydraulic mining". Greatly simplified, the operation uses great volumes of water shot from a nozzle under high pressure to break the coal apart. Mining begins at the bottom of the seam which preferably is at a 30 to 45 degree angle to the horizontal. The fractured coal, now mixed into a slurry with water, slides down into the collecting pit created at the base of the seam and is piped to washing facilities and settling tanks. The source of the mining water would be the nearby Wildhay River, and a pipeline would probably transport the coal to the Alberta Resources Railroad about 20 miles to the east. Denison Mines has spent approximately $1 million in preliminary exploration, in trenching, drilling and adit work to date. Other leasees have spent much less in preliminary exploration. The Crown revenues from rentals, fees, bonuses and royalities on these leases have amounted to about $250,000.

Thus, coal exploitation is a real threat to the future of the Willmore, not only to its wilderness solitude and potential for wildland recreation but to the very existence of its valuable goat and sheep herds. We were told in the past, when the Willmore was reduced in size by almost 400 square miles, that Alberta needed the new jobs that this industrial encroachment on our wildlands would bring. Yet now, looking back on the experience,

we know that this venture cost Albertan's over $100 million to build an access railroad which loses over $5 million each year and whose construction caused tremendous environmental damage. We know that the new town of Grande Cache was subsidized by the Alberta taxpayer to provide housing and the emenities of civilization to miners of a company which claims that it is losing millions of dollars each year. We know that the jobs promised to Albertans often went instead to miners brought in from other provinces and other countries. We know that the promise of permanency given to these miners could not be met, as evidenced by recent lay-offs. With this perspective, is Alberta now to embark on a second industrial adventure into the wilderness?

Alberta must decide, and decide soon, whether exploitation of these non-renewable resources of coal (and possibly gas) within the Willmore is to take place for the benefit of short-term gain (although when one looks at the role of the tax-payer in subsidizing certain of these operations it is questionable whether any gain actually occurs) against the long-term benefits of preserving the wildlands and wildlife habitat of the eastern Willmore.

Mining of coal seams along the Berland, Hoff and Persimmon Ranges can only result in the loss of our valuable bighorn sheep and mountain goat herds and the eventual demise of grizzly native to the area. Disturbance by human activity combined with the inevitable poaching of goat and sheep and illegal shooting of grizzly will ensure these losses no matter how diligent the policing. While only underground mining is proposed for now, the inevitable demand for stripping, as the only "economical" method will not be far behind. With strip mining comes the final demise of invaluable goat and sheep range. Even though Alberta now has what promises to be a unique and far-sighted surface reclamation law, the reclaiming of fragile alpine areas,

even at costs in excess of $5,000/acre, has never been demonstrated.

Must Albertans again permit inappropriate resource development within our last great Wilderness, the Willmore? We think not, yet it will take continued citizen interest and vigilance, for the decision is a political one. Our elected representatives must not only know that their decision is a correct one for the long-term good of Alberta, but that it is also a decision which has the full support of the informed citizens.

## QUARTZ MINERAL RESOURCES

A small mineral lease (E 1/2, Sec. 20, Twp. 55 Rge. 13 W6) is held by Mountain Gypsum Ltd. near Mount Fetherstonehaugh. At present, no exploration of the gypsum deposit has been attempted to prove-up the reserve. Gypsum is usually quarried and used as the main component of building materials such as plasterboard. The key to successful gypsum mining has been road or rail access, neither of which exist today.

## CONCLUSION

The above discussion is unfortunately inadequate as an economic analysis of the pros and cons of non-renewable resource development versus wilderness preservation. We have not even touched on facility-oriented recreation developments, or timber harvesting; these are demands on the Willmore, which if they come, will arrive on a later day. We have only alluded to the need for considering all costs (and real benefits) of non-renewable resource development within the Willmore when attempting to reach land-use policy decisions that affect the wilderness and wildlife values of this magnificent country. Some of the costs are social in nature, and thus currently defy the easy assignment of dollar values. Some costs involve reclamation of disturbed environments, reclamation which if it is to be successful, even within several generations,may reach astronomical costs. Some costs are evidenced in direct environmental damage to streams, and watersheds, and wildlife; these costs, ignored in the past, must now be included. All of these costs must be calculated and balanced with the benefits accruing to Albertans and other Canadians from any and all future resource developments on our Crown lands, and especially those most valuable Crown lands we know as the Willmore Wilderness Park. With such knowledge, and with information provided by environmental impact assessment studies, Albertans will now know the true cost to their environment of resource development and exploitation schemes. With this knowledge will come a new responsibility, a responsibility which can no longer be delegated. The future of the Willmore, our other East Slope Lands, and the quality of the environment throughout our province and country rest on how well we accept the obligations inherent within this responsibility. The decision is ours.

Woodland Caribou B. Horejsi

ACKNOWLEDGEMENTS

The Association acknowledges with sincere thanks the following individuals who gave of their time and knowledge to make this study possible: Anne Bronson, Ric Careless, Len Jeck, Grant McNabb, Tom Oliver and Dick Pharis.

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CANADIAN MINES AND TECHNICAL SURVEY MAPS

| | 1:50,000 | 1:250,000 |
|---|---|---|
| Holmes River | 83E/5 E & W | Mt. Robson 83E |
| Twintree Lake | 83E/6 E & W | and a small |
| Blue Creek | 83E/7 E & W | portion on |
| Rock Lake | 83E/8 W | Wapiti 83L |
| Moberly Creek | 83E/9 | |
| Adams Lookout | 83E/10 E & W | |
| Hardscrabble Creek | 83E/11 E & W | |
| Pauline Creek | 83E/12 E & W | |
| Dry Canyon | 83E/13 E & W | |
| Grande Cache | 83E/14 E & W | |
| Pierre-Greys Lakes | 83E/15 | |

Kakwa River Drainage Maps: Copton Creek 83L/3
Chicken Creek 83L/6 E & W
Prairie Creek 83L/7 E & W
Kakwa River 83L/4 E & W
Jarvis Lakes 93I/1 E & W

Torrens River Drainage Maps: Two Lakes 83L/5
Jarvis Lakes 93I/1 W

Narraway River Drainage Maps: Two Lakes 83L/5
Jarvis Lakes 93I/1 W

## Provincial Access Maps

1" = 4 miles 83E/D;83N/L

Canadian Mines and Technical Survey Maps are available in Calgary from the Geological Survey of Canada, Institute of Sedimentary and Petroleum Geology at 3303 33rd St. N.W.; the single sheets are 50¢.

Alberta Provincial Access Maps are available in Calgary in the Maps Room, Department of Lands and Forests, John Bowlen Building, 7th Ave. S.W. or at the Alberta Forest Service - Bow River Forest, 5425 85th St. N.W. In Edmonton, they can be purchased at the Department of Lands and Forests, Natural Resources Building. Prices are $1.00 each.

QUESTIONING BY THE AUTHORITY

MR. KINISKY:

Mrs. Stephenson, on behalf of Grande Cache, asks for development of considerable access into Willmore so the town could reap the benefits of the tourist trade there. On the other hand the Alberta Wilderness Association is saying, no, go the other direction. What will be the greatest potential for the area with the kinds of access the town has asked for? If the wildland character is maintained, as proposed by the Alberta Wilderness Association, what will the potential be?

MR. KYLLO:

Perhaps the improved access would benefit the town the most, but only over a very short term.

Willmore is famous now. I think that in ten years it will become even more famous but only if it's protected as a natural wildland area. If access is allowed it will become much like the other mountainous areas in the southern part of the province. With improved access, it will become a beautiful mountain area. With strong wilderness protection, Willmore can become known world-wide as a resource.

The submission of the town is perhaps a little misleading. Access to Willmore is necessary but right now Grande Cache does not have access to the edge of Willmore. A very poor road goes in. Some good means of access should be provided to several locations along the Willmore boundary, and one of them should be up the Smoky. In addition we should have campgrounds, facilities for people who wish to trail ride or backpack, something they can use as a jumping-off place. I think Grande Cache will realize more benefit as a jumping-off point for the wilderness use of the Willmore than from tourists coming through with cars and trailers. By the way, most tourists bring many of their necessary items with them. Thus the benefit to local areas is often not as great as it appears judging from traffic flows.

# DEVELOPMENT PROPOSALS
# FOR THE
# EASTERN SLOPES OF THE
# CANADIAN ROCKIES
# ALBERTA CANADA

"A general presentation made in reference to this proposal; background information, cost analysis and so on, is included with the Alberta Youth Hostels Council's presentation made in Edmonton."

Presented by: E. Wallace

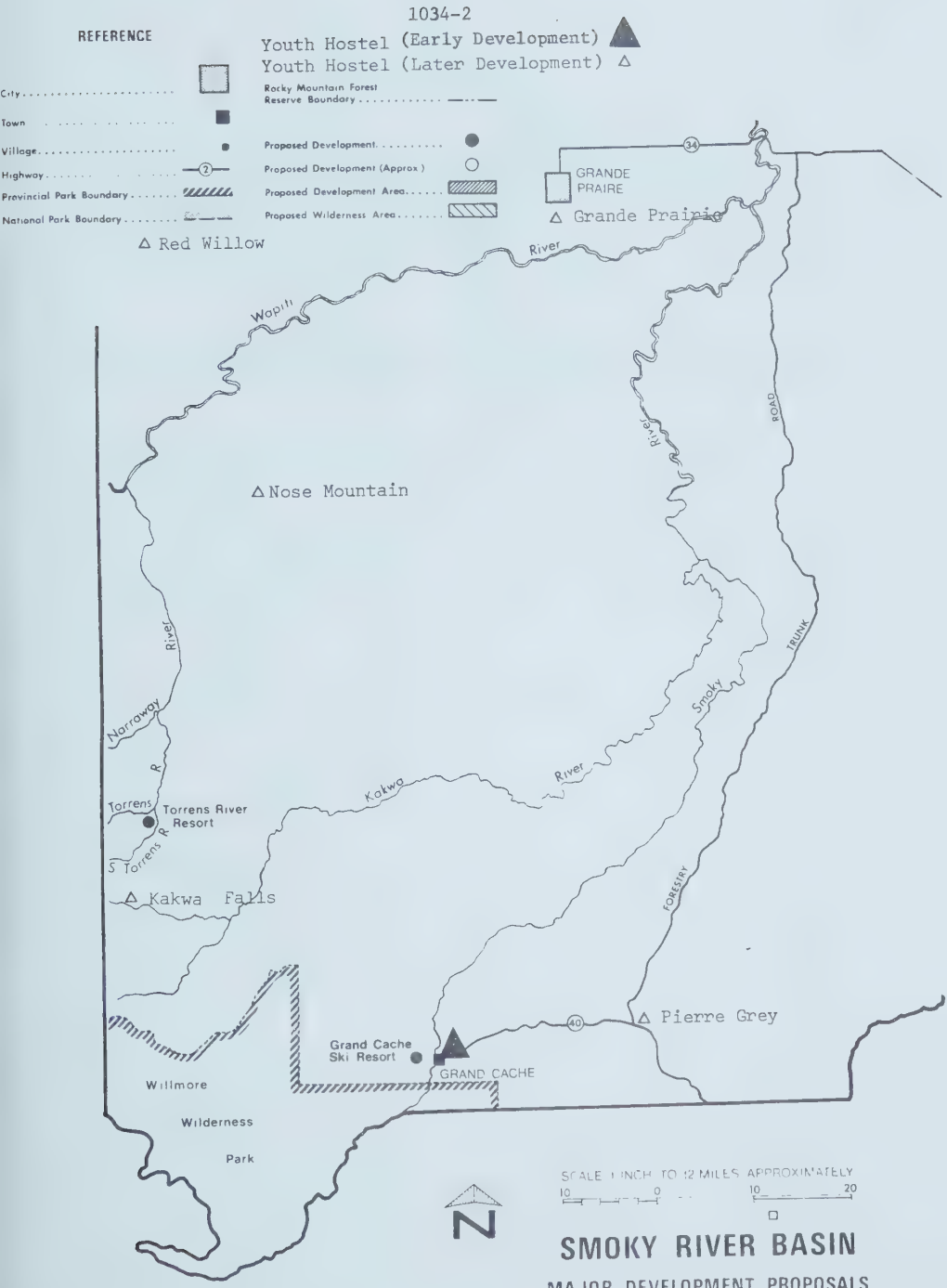
ALBERTA YOUTH HOSTELS COUNCIL

June, 1973

CYHA MOUNTAIN REGION
455 - 12TH STREET N.W., CALGARY
PHONE 283-5551

CYHA NORTH WEST REGION
10922 - 88TH AVENUE, EDMONTON
PHONE 489-3089

1034-2




SMOKY RIVER BASIN

MAJOR DEVELOPMENT PROPOSALS

# GRANDE CACHE YOUTH HOSTEL

## DEVELOPMENT PROPOSAL

The Alberta Youth Hostels Council proposes that the various levels of government in the Province of Alberta undertake to give a grant to the Canadian Youth Hostels Association, North West Region of approximately 2 acres or more of land in the Edson Forest Reserve. The land is to be located within the boundaries of the New Town of Grande Cache. The exact location is to be arrived at by agreement with government authorities and the Council of the New Town of Grande Cache.

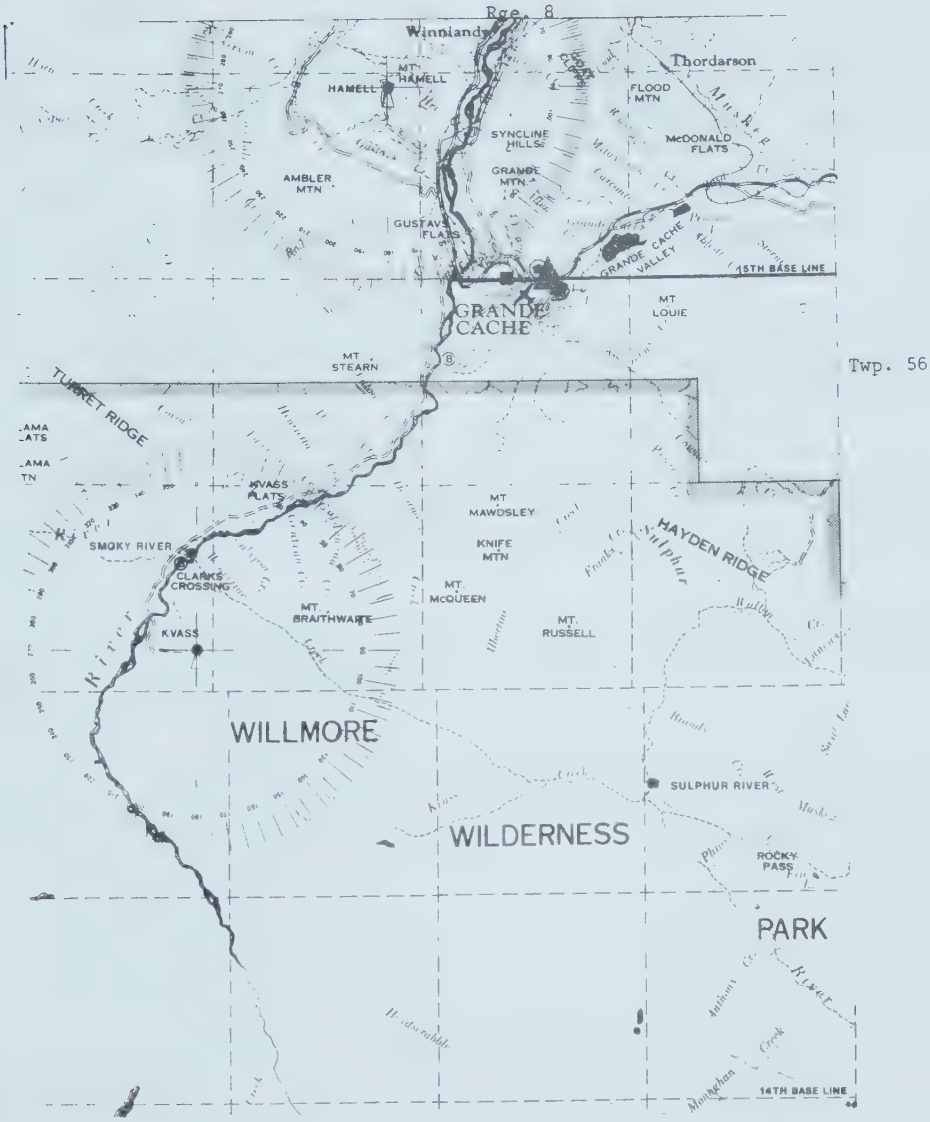
This land will be used to accommodate a youth hostel and will be subject to the types of regulations imposed to ensure the safety and good health of all who use the facility. A land area of this size is requested:

1) to allow for location changes in any adjacent roads and road allowances,

2) to allow the hostel to be located adjacent to a temporary and emergency potable supply of water,

3) to allow the hostel to be well away from any traffic road.

HOSTEL SITE




▲ GRANDE CACHE YOUTH HOSTEL

## LATER DEVELOPMENT

| | |
|---|---|
| PIERRE GREY<br>KAKWA FALLS<br>NOSE MOUNTAIN<br>RED WILLOW<br>GRANDE PRAIRIE | Five Localities |

## PROPOSAL TO DEDICATE EACH LOCATION FOR LATER HOSTEL DEVELOPMENT

Localities are indicated on the map on Page 45.

Detailed development proposals are NOT included at this time for hostels in these localities because we do NOT see early demand for their use (i.e. within five years).

We do propose, however, that we consider development of a hostel in each of these localities sometime after a five-year interval, and to that end, we further propose that the Government of Alberta now dedicate 2 or more acres in each locality as a site for later hostel development.

QUESTIONING BY THE AUTHORITY

MR. KINISKY:

We've had this proposal before us on eight other occasions, so we've questioned it quite extensively. We now have some pretty good background about the intentions of the Canadian Youth Hostels Association. The location you have proposed generally for this area is quite close to Grande Cache.

MR. WALLACE:

The proposal for Grande Cache would be inside the townsite.

MR. KINISKY:

It was stressed at other hearings that the hostels are used as locations for outdoor study, environmental work, biological field trips and so on. In this context wouldn't a location in the wilderness be better for the use of the schools, Scouts, Girl Guides and such organizations within the town?

MR. WALLACE:

For the youth hostel within the area, Grande Cache is central to the Smoky basin. Having one within the community with five others outlying would give people a chance to get supplies and essentials in the town.

Also, we would like to have a youth hostel organization formed in Grande Cache. This would benefit the youth hostel as well as the town. It would be essential to have one within the townsite or the immediate area of Grande Cache.

MR. KINISKY:

So in essence your proposal for this area is more to take care of people who are travelling than to service people in the town. Of course, they live in such a gorgeous wilderness now, you don't really need that...

MR. WALLACE:

Right.

MR. DOWLING:

Is it difficult to acquire land for the hostel inside the town limits?

MR. WALLACE:

The land for the youth hostel was set for us by Ellis Hammer in one of his proposals about hostel development locations. We would like two acres or more. We would appreciate it if the government would either donate or dedicate land to us, if this is possible. We would get together with the people of Grande Cache about the site. We ask for two acres to allow for further development of the youth hostel. We ask that a site not be directly on a major highway, so that people will have the quietness of the hostel.

MR. DOWLING:

Is it necessary to have easier access into the town if you're to have a successful hostel operation?

MR. WALLACE:

The present road is pretty archaic and improvements...

MR. DOWLING:

It's not a road you'd travel on your bicycle.

MR. WALLACE:

No. Cyclists are one of our major concerns. We would like to see an area of road, or better yet a path, set aside for cyclists throughout the chain area. It should be off the roads, so cyclists would not interfere with traffic and vice versa.

R. Johnstone summarized the Canadian Petroleum Association's Submission presented formally in Calgary.

QUESTIONING BY THE AUTHORITY

MR. KINISKY:

When you say the petroleum industry is a minor user of land, do you include in the total all land involved in seismic exploration, roads, pipeline corridors, power transmission lines and everything else?

MR. JOHNSTONE:

I refer mainly to the exploration and development part of the oil business. Depending on the depth of the well, a drilling location will be in the neighbourhood of 300 to 400 feet in each direction, about three to four acres. In the exploratory stage there will be one well every ten miles or so, so we'd be using four or five acres out of ten square miles. On a development program with gas we'd have one well per square mile, 640 acres. In the case of oil, it would be either two or four wells per square mile. So the percentage of land we use for development or exploration for drilling is small.

I believe we have a 50 foot right of way for our seismic lines. They extend for miles. The desirability of an area determines how close the lines come. Any one company will have them crisscrossed but they'll be a mile or two apart. That doesn't sound good to the people who go out and see seismic lines every 100 or 200 feet. That was the practice at one time, but we are no longer allowed to do that. Seismic lines are regulated by authorities.

MR. KINISKY:

We discovered from North Western Pulp and Power that the seismic exploration carried out on their leases destroyed enough timber to have supplied all their pulp needs for two solid years. What sort of practice will your industry become involved in to resolve the problem of wasting timber at this pace? Although stumpage is paid on it, the resource is lost in the process.

MR. JOHNSTONE:

I'm not familiar with the rules on seismic clearing. I'm in drilling. There is a loss. The forest service tells us where to lay the trees, how to get rid of them. I'm sure there is room for improvement by using the timber instead of just laying it in the seismic trails.

MR. KINISKY:

There has been a tremendous development of environmental awareness over the past few years. Some practices which predated this new environmental awareness certainly were not good ones. Some old seismic lines have shown pretty bad damage from erosion and things like that. Are you aware of plans within the petroleum association to go back to some of the major mistakes and do something about rectifying them?

MR. JOHNSTONE:

We are now required to go back to cross-ditch seismic lines, reseed them and restore them to their natural drainage patterns. We have to do that now in the Rainbow area. The regulations are such that we restore, or are supposed to restore, things to their original contours and drainage patterns and reseed them.

MR. KINISKY:

Are you making any progress in the Swan Hills area?

MR. JOHNSTONE:

I couldn't answer that.

MR. DOWLING:

Of the proven reserves of oil and gas in the province, what percentage lies in the Smoky basin?

MR. JOHNSTONE:

I read in a bulletin put out by another group that 7 per cent of the reserves are in the eastern slopes.

MR. DOWLING:

I would imagine that a very modest percentage is here in the Smoky River basin.

MR. JOHNSTONE:

A very small part. The Latornell and Gold Creek areas in this district are the only producing fields.

MR. DOWLING:

Is the oil industry interested in further exploration of the Smoky basin?

MR. JOHNSTONE:

Yes. Given the present trend of gas prices and our reserves, we are looking into the foothills harder than we have in the past. That's all on paper. We haven't started asking for permits yet.

MR. DOWLING:

It has been drawn to our attention that at one time the number of successful wells out of the number of wells drilled was much higher than it is today. I understand that in this area the potential for oil and gas is moderate. From your past experience how many wells do you think you would have to drill here before you had a successful one?

MR. JOHNSTONE:

In the old days 1 well in 49 was successful. We do better than that now. We've improved seismic and interpretation techniques. With wildcatting only, about 1 well in 30 yields a commercial well, and 1 in 20 yields something.

MR. DOWLING:

Your success ratio in recent years has actually improved?

MR. JOHNSTONE:

It's improved due to better geologic and seismic knowledge. They're learning all the time.

MR. DOWLING:

Probably during the exploration process you will still have to do as many seismic cuts and drill as many exploration wells?

MR. JOHNSTONE:

The land-use people make us use old lines more and more. We don't cut as many new lines.

Over the years the technique of seismic recording has changed. We're looking at different layers which the sound waves bounce from. By redoing it, they improve techniques and results. We do have to use new lines but we use all the old ones we can.

ENVIRONMENT CONSERVATION AUTHORITY

Presented by: Mel Williams

## INTRODUCTION

For those of you who don't know me, my name is Mel Williams. I was born and raised in Alberta. My wife, Barbara, is from New Brunswick, where she received her degree in teaching. We have lived in Grande Cache for nearly three years.

It is our wish to obtain permission to use some of the public land in the Grande Cache area for a youth camp.

We sincerely feel that a land as rich as ours in fishing, wildlife, mountain trails and beautiful scenery has everything to offer young minds.

We also believe that camps of this nature will help produce young people who will love and respect our land, especially in terms of pollution and conservation, so our countrysides will stay as beautiful as they are now.

## ECONOMIC AND PEOPLE BENEFITS

Approval of our summer camp would not only be great for children but would be beneficial for the New Town of Grande Cache.

This camp would accommodate 160 youngsters per summer, (20 children per week for an eight week period) all between the ages of 12 to 15 years. Everything needed to keep these kids happy and healthy will be purchased from our business men. This would include such things as building materials, food stuffs, proper insurance coverage, camping gear and sports equipment.

It is our hope that some of the native people of Grande Cache can help make this youth camp a very memorable experience. Such things as Indian handicrafts, campfire tales of yesteryear, and folklore from the experiences of our first settlers would intrigue almost every youngster.

In addition, every child from out of town who returns home and tells his friends and family about the beauties of our mountain wilderness will be turning many a tourist up the road to Grande Cache.

FUTURE NEEDS

The demand for a chance to enjoy fresh air in the vast outdoors is becoming greater every year. Many parents who are both working and cannot always be with their children want very much to have them experience the pleasure of camping. The needs and demands of our younger society are as great as their problems. With the rising crime rate, drug and social problems, it would be a wonderful thing if every single boy and girl could have the opportunity to get out into the woods on his own and enjoy all the wonders that nature has to offer.

CONCLUSION

We recognize the problems you people foresee as you imagine groups of youngsters tramping through our woods, but we wish to stress our desire to operate a neat and orderly camp.

We feel certain that under the guidance of myself, my wife and two trained counsellors, we could help the children enjoy many memorable times as they tent in the fresh mountain air of Grande Cache.

Respectfully submitted,

Noel Williams

July 9th, 1973.

QUESTIONING BY THE AUTHORITY

MR. KINISKY:

Are you proposing a commercial enterprise, a camp where you will bring children, charge them a certain amount and keep them for a period of time to expose them to the wilderness area?

MR. WILLIAMS:

This is right.

MR. KINISKY:

How large an area are you talking about?

MR. WILLIAMS:

The area we have in mind right now is only a couple of acres for the campsite. From this site there are good trails for horseback riding and hiking. It's spread out in all directions.

MR. KINISKY:

What is the location?

MR. WILLIAMS:

It's south of town, on Adolphus Creek, this side of the Sulphur River.

MR. KINISKY:

You say you will have 20 children plus 4 staff members there at any one time. You're looking at a total population of about 25 people on location. What did you want in the line of buildings?

MR. WILLIAMS:

There won't be any permanent buildings. Outhouses would be the closest thing to a permanent building.

MR. KINISKY:

In essence this would be a tent camp?

MR. WILLIAMS:

Yes. We thought of platforms with tents on top to keep the kids off the damp ground.

MR. KINISKY:

Have you looked at the Canadian Youth Hostels program and the things they do to give children an opportunity for outdoor experience?

MR. WILLIAMS:

Yes.

MR. KINISKY:

If more youth hostels are built in this area, would you be able to maintain an economically viable unit?

MR. WILLIAMS:

Yes, we could.

MR. KINISKY:

Do you feel you have something to offer above and beyond what the youth hostels offer?

MR. WILLIAMS:

Yes. Yesterday we were talking to Mr. McRoberts, acting supervisor for the Department of Culture, Youth and Recreation. He gave us many good program ideas and suggestions.

MR. KINISKY:

Would you want this land under lease so you could control access on a year-round basis?

MR. WILLIAMS:

The access to this land goes across Indian land. We've made arrangements with the Native people to cross their land, but they are rather sticky about letting just anybody across. I think perhaps summer use is what we wanted.

MR. KINISKY:

So you would be concerned with the land only during the summer vacation period?

MR. WILLIAMS:

That's right.

MR. KINISKY:

Is there any possibility of conflict with other users in the area? Would coal leases, timber cutting or anything else cause you a real problem or vice versa?

MR. WILLIAMS:

No, I don't think so.

MR. KINISKY:

Could you provide us with a detailed map indicating a precise location so we can study this with more care?

MR. WILLIAMS:

Yes.

MR. DOWLING:

You talk about 20 children per week for an eight week period. Would these children come from Grande Cache or from other areas?

MR. WILLIAMS:

We want to give the kids in Grande Cache first choice.

MR. DOWLING:

There are roughly 3,800 people in the town. If you have 160 kids between 12 and 15 years, I suppose you have 600 kids between 12 and 16 years.

MR. WILLIAMS:

Right.

MR. DOWLING:

So there's no problem with supply. Why did you choose ages 12 to 15? Have you considered younger children?

MR. WILLIAMS:

Yes. But the 12 to 15 year old kids are pushed aside. They're told they are too young for everything, yet they are old enough to want to be in on things. Besides, my wife is a qualified school teacher. She has taught children of this age and has done very well with them.

MR. DOWLING:

Everything in life has an educational aspect, but would you have particular emphasis on environmental education?

MR. WILLIAMS:

Yes. Mr. McRoberts sent us some information concerning a survival course at Blue Lake. I hope to take this course. Perhaps it will enable me to show these kids all aspects of survival.

MR. DOWLING:

What other activities would you have?

MR. WILLIAMS:

First aid without a kit, edible plants, tree description and identification, trail rides and hiking. We hope for an overnight trip up one of the mountains, perhaps Stearn Mountain. It's really a nice hike.

MR. DOWLING:

This operation of yours would work only if you had a surrounding area to provide recreation land. The camp itself would not be big enough for that.

MR. WILLIAMS:

Right.

MR. DOWLING:

This would be a public camp open to anyone who could pay the fee?

MR. WILLIAMS:

That's right.

CANADIAN UTILITIES LIMITED

10040 - 104 STREET, EDMONTON, ALBERTA T5J 2V6/TELEPHONE (403) 424-6161

1043-1

Presented By: Gordon Cameron

July 9, 1973

Environment Conservation Authority,
9912 - 107 Street,
EDMONTON, Alberta.
T5K IG5

Dear Sirs:

RE: Eastern Slopes

Alberta Power Limited, and its predecessor Canadian Utilities Limited, as an electric utility company has been engaged in generation, transmission, distribution and sale of electrical energy within the Province of Alberta for the past 46 years. The Company and its subsidiaries provide electric service to 343 communities in Alberta. Within Alberta the Company's service area covers 83,700 square miles in the east-central and northern parts of the province.

Within the past decade the Company has experienced substantial increases in loads. To keep pace with these load growths the Company's generating capacity has been increased to 520,000 kilowatts with the recent commissioning of the 150,000 kilowatt H. R. Milner generating station near Grande Cache. This station is located in the Eastern Slopes area which is presently under review by the Environment Conservation Authority.

Alberta Power Limited supports the multiple land use concept incorporating integrated resource management principles to achieve maximum development of the abundant resources in the Eastern Slopes. In those areas where optimizing conditions are favourable to simultaneous use of multiple resources, our Company supports the continuing need for development of those resources for the benefit of the province recognizing the pre-requisite conditions of sound economics and environmental restraints.

As an example of such development of the natural resources in the foothills region our Company's H. R. Milner generating station is cited to demonstrate how environmental considerations were carefully

pre-planned and incorporated into the overall working design of the power station.

This station is situated in the northwest part of the provincial interconnected electric grid system which in turn is connected to the remainder of the grid by long high voltage transmission lines. The H. R. Milner Station ensures a continuity and security of sevice for the northwest area and in particular Grande Cache and the McIntyre mining development which are in close proximity to the station.

The station has been designed to economically utilize a waste by-product from an export coking coal development. If this low grade waste coal was not consumed as fuel in the power plant other costs would be incurred to haul it to disposal sites.

The design of the station incorporates a number of features necessary to protect the surrounding environment.

A multi-cyclone fly ash collector was installed in front of a large electrostatic precipitator. This combination when fully commissioned and operating at expected efficiencies will result in the station meeting Department of the Environment regulations regarding air quality.

The necessity to avoid thermal pollution of the Smoky River required installation of a cooling tower. The H. R. Milner Station is the only electrical generating station of its size in Canada to use a cooling tower for station cooling. With this arrangement most of the water requirements are re-cycled and re-used. Any effluent waters from the station returning to the Smoky River are put through a settling pond and carefully monitored before being released into the river.

Pollution control equipment and facilities at the site have contributed to additional costs at this location. An amount in excess of $2 million was spent to provide these facilities. This forms part of the $42 million investment in the H. R. Milner Station and its related transmission lines.

The H. R. Milner Station is located adjacent to McIntyre's coal plant and minimizes the scatter of surface disturbance to an environmental advantage. In the overall station design architectural techniques have been incorporated to blend with the surrounding environment.

Alberta Power Limited recommends development of broad policies within which a sustained pattern of economic growth can emerge throughout the diverse expanse of the foothills region. It is evident that our society must reconcile its needs with the needs of the same society to preserve the environment within which it exists.

Yours very truly,

G. R. Cameron,
Co-Ordinator of Environmental Programs

GRC/vs

QUESTIONING BY THE AUTHORITY

MR. KINISKY:

There has been some trouble in various areas of the province with power transmission lines, pipelines, roadways and other utility corridors crisscrossing the country to the extent that a lot of land is being used. This practice has cut the land into small portions which are not economical in various ways. What action is your company taking to see that we use minimal land for utility corridors, that we fit our pipeline transmission with the power transmission, roadways and that sort of thing?

MR. CAMERON:

I'm not a technical man, so I will give a very general answer. We believe in the multiple use of a right of way. If we could use a railway right of way for a natural gas pipeline or for power lines we would do so. For one of our new lines we discussed this and entered into agreements with the provincial government. We altered the course of the transmission line in order to place it in a corridor which the government suggested for multiple use by various types of utility lines.

MR. KINISKY:

Alberta Power's H.R. Milner Plant is using a by-product of the coal mining process, which to me is a wise way of using our resources. Some other mining operations must have a by-product which is wasted. Is your company using these waste products at other minesites for thermal generation?

MR. CAMERON:

I don't believe we have any other plant at the present time that has the opportunity to use a waste product for the generation of electricity. I agree with you, it is an ideal situation. In the Battle River-Forestburg area, where we have three plants and a fourth under construction, we use the coal from the strip mining operation, although it is more expensive to purchase. There is not a situation there similar to here, where they have large contracts with foreign countries.

MR. KINISKY:

Do Cardinal Coals and Luscar have a by-product which you could utilize in a thermal generation plant much as you do at the H. R. Milner plant?

MR. VERNON: [From the floor]

Bob Vernon, Alberta Power Ltd.

A limited amount is being used, but not on the same scale as at the Milner station.

MR. KINISKY:

But there is a product which is not being utilized at all at other mining locations?

MR. VERNON:

This is correct.

MR. DOWLING:

Was the H. R. Milner generating station originally built for the prime purpose of servicing the McIntyre Porcupine mine and the town of Grande Cache?

MR. CAMERON:

I think it was an accumulation of needs. The system required additional power for the grid system of the province. Grande Cache would require electric power and the mining operation required an abundance of power. It made considerable sense to build this plant on the site of the mining operation as it was to be a thermal plant. The opportunity existed to use the waste product which otherwise would have had to be disposed of in some other way. All three requirements accumulated.

MR. DOWLING:

What percentage of the power generated at the Milner station is used in the immediate area of Grande Cache and the mine?

MR. CAMERON:

Of the 150 megawatts about 10 per cent is used locally.

MR. DOWLING:

You're built into an electrical grid, which means that in the event of a failure at the Milner station there would be power available to the town and the mine.

MR. CAMERON:

This is what's going on now. The power plant is shut down and has been for a number of weeks. It is due to go back on stream the first of next month, I believe. We're drawing power at present from Simonette and the Grande Prairie system.

MR. DOWLING:

Is all your power generation done through thermal electrical generation, or do you have any hydro-electric power sites?

MR. CAMERON:

We have one hydro plant. I believe we have 53 plants in the province. The majority of them are internal combustion engines, either gas-fired or diesel units. I believe that 7 of our 53 plants are thermal plants.

MR. DOWLING:

What is the future for thermal generation using coal?

MR. CAMERON:

We believe it looks very good. We think the coal should be used for the generation of electricity because we feel that you then get maximum use of the resource, sort of from birth to death. You mine

the coal, build and staff the plant, you have a part of a community where there are a number of people making a living operating the plant, then you supply basically low-cost electricity from this generation.

MR. DOWLING:

Is it fair to say that the future thrust of development for Alberta Power will be towards thermal generation using coal as fuel?

MR. CAMERON:

In Alberta I would say yes - possibly towards gasification plants, converting coal to gas. But I would say that coal is the first priority.

MR. DOWLING:

What is done with the fly ash after it has been collected?

MR. CAMERON:

There is an ash settling pond. If you want details Mr. Vernon could explain.

MR. DOWLING:

Does it have any future uses? Could it be used for lightweight concrete, for example?

MR. CAMERON:

Yes.

MR. VERNON:

At present the ash is pumped back to disposal sites.

MR. DOWLING:

So it's left in the settling pond?

MR. VERNON:

Right.

MR. DOWLING:

What is in the cooling water that has to be settled out? You state that any water from the station returning to the Smoky River is put through a settling pond.

MR. VERNON:

These effluent waters would be in things like ...[Inaubible]... where you clean the boiler.

MR. DOWLING:

So these are relatively minimal, are they?

MR. VERNON:

That's right.

MR. CAMERON:

I might elaborate a little on your question about the use of fly ash. It is being used to a considerable degree but only on a minimal basis. It is used in the construction of cinder blocks, railroad ballast and cement blocks. Presently the industry has no way to use the amount of fly ash that comes from a plant of that size. We develop about 150,000 tons a year at the plant.

MR. DOWLING:

Is disposal a problem?

MR. CAMERON:

At present it's a bit of a problem but it can become a larger problem later on. Once your settling ponds fill up, you have to find another location for them. I understand that some of the ash that comes out of the plant still has some unburnt carbon in it. It would be nice if there was some way we could recycle that into the burners, but I know of no method by which this can be done.

MR. DOWLING:

What acreage is necessary for the development of a facility such as H. R. Milner?

MR. VERNON:

Approximately 40 acres for the facilities including transmission lines, switchyards, garages, shops and auxiliary facilities.

# McINTYRE PORCUPINE MINES LIMITED

## SUBMISSION TO THE ENVIRONMENT CONSERVATION AUTHORITY

Presented By: J. Stewart

## INTRODUCTION

McIntyre Porcupine Mines Limited welcomes the opportunity to present at this Public Hearing a brief which is submitted in conjunction with, and supplementary to, the brief submitted by the Coal Association of Canada.

McIntyre is a lease owner and coal operator in the Smoky River coalfield and believes it is important that the pertinent facts concerning the coal reserves, the methods available for their extraction, the protection of the environment during extraction, and the reclamation procedures used following extraction, be made known to this body and to the general public. In addition, it is intended to demonstrate the important role that the environment and reclamation play during the planning and execution of all operations.

## GENERAL

McIntyre Porcupine Mines Limited has held interests in coal leases under Crown land in the Smoky River Valley since 1931. Intensive exploration for coal in these lease areas began in 1958, since which time some 26 million dollars have been expended in proving an estimated 2,146,000,000 long tons of coal in place within the lease boundaries.

It is relevant to the present international energy and fuel situation that the majority of these coals are within the low-volatile metallurgical coal specifications, i.e. they are used primarily in the production of iron and steel.

The development of the Alberta Resources Railway and the agreement for the building of the New Town of Grande Cache paved the way for McIntyre to develop the plant site and establish mining in the area. At the same time, adjacent to the McIntyre coal preparation plant, Alberta Power Limited built the Milner Generating Station designed to convert thermal quality coal into electrical energy for use within the Province of Alberta. This Generating Station provides approximately 29% of the total generating capacity of Alberta Power Limited.

Since 1966, McIntyre has invested approximately $91,000,000 in the New Town of Grande Cache and in the Smoky River coal properties. Approximately 60% of this amount was spent in Canada.

Currently, McIntyre's annual labour cost is $6,300,000 while Grande Resource Management Limited, an open-pit mining contractor employed by McIntyre, spends a further $2,100,000 annually on labour at the minesite. At present, some 636 persons are steadily employed at the minesite by McIntyre and its contractors. In addition, thirty-two native persons are employed on a temporary basis, and twenty-five students are employed for the summer period.

The remaining costs incurred at the minesite amount to approximately $11,300,000 per annum for materials and supplies, of which some 36% valued at more than $4 million are obtained from within the Province.

In addition to the foregoing on-site costs, McIntyre pays the Canadian National Railways some $5,700,000 per year for rail freight to Vancouver.

It is generally accepted by economic consultants that a provincial multiplier of at least four (4) can be applied to the manpower directly employed at a Canadian mine. On this premise, approximately 3,180 jobs are provided in the Province of Alberta as a result of McIntyre's coal mining activities.

COAL RESERVES - MINING METHODS

As previously stated, proven in-place coal reserves on leases in the Smoky River Basin held by McIntyre Porcupine Mines Limited, amounts to some 2,146,000,000 long tons. The area contained by these coal leases is less than 2% of the Smoky River Basin, while the area included in open-pit mining plans submitted to the Government is less than 0.03% of the Smoky River Basin.

The leases held by McIntyre contain coal seams ranging in inclination from horizontal to vertical. It has been estimated that of these reserves 4% are moderately inclined, 67% are steeply inclined and mineable only by underground methods and the remaining 29% are recoverable by surface mining methods, also of a steeply inclined nature.

Currently, McIntyre is operating one underground mine in the relatively flat coal measures, and one open-pit mine which supplies approximately 60% of the production.

In addition, experimental work will shortly commence to determine methods of extracting the steeply pitched underground coal reserves.

ENVIRONMENT CONTROL AND RECLAMATION

McIntyre wishes to place on record the facts concerning the work that has already taken place, and to which it is committed in the fields of environment control and reclamation. The aim is to leave the land in an ecologically stable state so that vegetation, birds, animals and fish may live where mining has taken place.

EXPLORATION

The first stage in developing a mining property is exploration, which involves drilling, trenching and adits. Prior to work commencing in the field, a detailed map must be prepared showing the proposed locations of all roads, drill-sites, trenches and adits, and the program examined and approved by a committee composed of a number of Government Departments before the Company can commence its activities. The approvals are granted subject to a number of conditions and to the control of the local officers of the Department of Lands and Forests.

Reclamation following exploration involves recontouring, cross-ditching where necessary, re-fertilizing the land and re-seeding.

MINE DESIGN

Permission must be obtained from the Provincial Government to develop a mine in the Province of Alberta. In addition to the technical information required by the Government, a detailed plan must be presented indicating the environmental controls to be incorporated in the mining and reclamation.

The design of a mine and the related reclamation are carried out concurrently. Both are complex engineering problems, in which rock strengths, slope stabilities, groundwater and drainage patterns play a vital part. The initial rock removed must be placed outside the pit in pre-approved and prepared areas which have adequate water control systems to avoid possible siltation of nearby streams, as must the entire mining area. By phasing the development of each mine, McIntyre ensures that a minimum area of land is disturbed at any one time.

It is not often possible to restore the ground to its original contours in the foothills region where McIntyre hold coal leases. Thus, the aim of all reclamation work is to restore the area to an environment compatible with its pre-mined environment. Reclamation is not delayed to the end of the mining program, but is planned to begin as soon as possible after the mining operation has begun, the objective being to reclaim each area as soon as it has reached its final, stable configuration.

LAND DISTURBANCE

The Company must have made a firm commitment (in the form of a reclamation plan) to reclaim the land before a mining permit is issued. This commitment is supplemented by the posting of a Bond with the Provincial Treasurer to ensure that finances are available for this

work.

Restoration and reclamation follow a planned procedure as part of the total operation. A policy of small-scale testing and experimentation in conjunction with officers of the Department of Lands and Forests and staff of the Research Council of Alberta is continuing. All topsoil is removed and stockpiled prior to mining and restored as part of the restoration program. Some 58 miles of exploration roads and outcrop exposures were successfully reclaimed in 1972, and this work is continuing, while re-seeding field trials using domestic grasses on restored areas in the No. 8. Mine have successfully withstood the winter. Doctor R. C. H. Cormack of Edmonton, has been engaged to advise on native vegetal cover.

While the ground may not be restored to its original contours, parameters have been proved for slope stability, and Consultant Engineers, R. M. Hardy and Associates Limited, of Edmonton and Calgary, are retained to study and analyse foundation material in each mining area.

WATER POLLUTION

Mining and associated operations are controlled and function within permits issued by the Standards and Approvals Committee under the Clean Water Act. Permits are issued conditional that designs of all drainage works and effluent discharges meet stringent specifications.

Drainage patterns are studied before any mining takes place, and designs for drainage, settling ponds and sewage treatment plants are engineered. Specialist consultants, Associated Engineering Services Limited and Kilborn Engineering Limited have been, and continue to be, employed in this work.

Materials to be used for settling pond constructions are analysed by R. M. Hardy Associated, and specifications derived to ensure constructional stability.

The Research Council of Alberta has, and continues to, monitor background water quality.

The effluent is monitored, and the results of the sampling are reported monthly to the Department of Pollution Control, (who also monitor the operation by independent sampling), following the installation of drainage works.

FISH AND WILDLIFE

All structures near to, and over, rivers must be approved by the appropriate Government departments prior to construction. Buffer zones are provided adjacent to all main water courses.

Aquatic wildlife consultants, Aquatic Environment Limited of Crossfield, Alberta, have been engaged to establish background information, and to advise on a minimizing disturbance to the fish habitat.

Current approvals for discharge into streams specify bio-assay tests on effluents as part of the routine pollution control. Coals found in the Smoky River Coalfield have a very low sulphur content with the result that acid river water, a serious pollution problem in many coalfields, does not constitute a hazard in this coalfield.

FLOWER AND UNGULATES

Specialist consultants, Wildlife Heritage Limited of Calgary, have been commissioned and are studying the ungulates in the mining lease areas.

In addition, they advise on means of preserving animal migration patterns and on the restoration of feeding and browsing grounds.

Hunting will be stopped in the mining areas, and the function of the planned programs of mining and continuous restoration is to minimise the area disturbed at any one time.

CONCLUSION

McIntyre Porcupine Mines Limited has a concern for the environment and intends to restore its leases to a near wilderness state. Their endeavours in this can be seen by a visit to the No. 8. Minesite, and by the financial expenditures involved in basic studies,

advisory consultants and in the reclamation accomplished. To date, approximately $250,000 has been expended on reclamation, experimentation and environment related consultants, while a further $200,000 is already committed.

The future of the access roads into the mining areas is a question that must be answered by the residents of Alberta at the end of mining, as must the type of amenities to be provided. The Company is prepared to take into account the wishes of the majority of the residents, and trusts that submission will be constructive so that these wishes can be incorporated into the design of future mines.

John Stewart. O.D.R.

McINTYRE PORCUPINE MINES LIMITED,
Coal Division,
GRANDE CACHE, ALBERTA.

July 10th 1973

QUESTIONING BY THE AUTHORITY

MR. KINISKY:

How much land is disturbed at present by the operations at McIntyre Porcupine?

MR. STEWART:

We have approximately 140 acres on the No. 8 minesite, the open pit mining area. We have approximately 230 acres of actual mining areas at the moment.

MR. KINISKY:

What is your total production commitment on an annual basis?

MR. STEWART:

Our planning at the moment is for approximately 1.3 million tons from open pit production and slightly in excess of 0.5 million tons from underground.

We have separate programs underground. The planning is for approximately one-third of the output from underground and two-thirds from the surface, for a production of about 1.8 or 1.9 million tons a year.

MR. KINISKY:

A certain amount of coal can be obtained by surface mining operations and the rest is underground. There shouldn't be any real necessity to disturb more than 400 or 500 acres of land at any one time for a mine that is producing 2 million tons or less. Would that be reasonable?

MR. STEWART:

It is somewhat difficult in this situation. It really depends on the total reserves and the configuration of the coal. The area we mine in the Smoky River basin is badly disturbed geologically. The plan is to eventually backfill any mine as much as possible. We remove rock to get at the coal and we replace it when the coal has been extracted.

Our prime concern is to avoid sterilizing considerable reserves of what we consider to be a valuable potential product for Alberta. We must in fact reach an economic or physical limit. We go down as far as we can before we start putting rock back on any remaining coal. Depending on the geological structure, you either go to the bottom of a hollow before you start backfilling, or the coal is plunging so deeply that it then becomes an underground operation.

MR. KINISKY:

Is your company doing any work on the development of hydraulic mining, especially in those areas where the geological structure is amenable to this type of work?

MR. STEWART:

Currently, no. The company has prepared three basic plans for hydraulic mining. We have a lot of development work going on at the

moment and therefore we must phase this particular work. There are certain limited areas where we feel hydraulic mining can be done. But there are also areas which represent a greater percentage of the coal reserves for which underground mining techniques must be developed. It is this particular phase of the operation which has a more general application to most of the coal reserves we're aiming at currently. As I mentioned in the brief we are doing experimental work - if it can be called that - to determine parameters for mechanized mining of these steeply inclined seams.

MR. KINISKY:

Under the current processes for underground work approximately what percentage of the coal are you able to recover?

MR. STEWART:

We are recovering approximately 50 per cent but it is very dependent upon how you classify this. I'm really a surface man and I will verify that figure with Mr. Wright.

MR. WRIGHT: [From the floor]

Patrick Wright, planner with McIntyre Porcupine.

The current figure is 40 per cent since the seam we're now mining is 20 feet in thickness and it is not possible to support 20 vertical feet. It is taken in lifts, first of 10 feet, then a further 6 feet where possible, leaving pillars of support for the workings for safety. So the percentage is 40 per cent of the in situ coal for the 20 foot seam. With a thinner seam it would go up to about 80 per cent.

MR. KINISKY:

Is there a process whereby you can go through in situ gasification later for the use of the remaining coal?

MR. WRIGHT:

There are processes being developed in other areas. We're in very close contact with the Energy Resources Conservation Board and also the federal Mining Research Centre which has an office in Calgary. Due to the particular type of mining it isn't practical at this time to synchronize these methods with current mining procedures. But consideration is being given to work these reserves at a later date. The fact that we haven't actually mined the coal now doesn't mean that it is impossible to get it at a later stage. This is being taken into consideration with the planning.

MR. KINISKY:

The plantings for reclamation work at No. 8 minesite were done last year and came through the past winter in fair shape.

MR. STEWART:

That's right. The test plots - initially we are sticking to small scale - were planted between the end of May and the end of June, 1972. Our main concern was whether they would withstand the winter and they have, extremely well.

MR. KINISKY:

Are you using the seed mixture the Department of Lands and Forests has been developing?

MR. STEWART:

No, but let me amplify this. The Department of Lands and Forests has some very good seed mixtures and on our exploration reclamation we use their recommendations almost entirely.

In September, 1971 the Research Council of Alberta was engaged to investigate background information, types of species which could grow rapidly, the effects of mining on ground water, and in general collect basic information on the open pit operations we are conducting in the Smoky River coal field. It was not completely independent research because obviously it would be foolish to do the same work the Department of Lands and Forests is doing. The research they have done is aimed at providing extremely rapid cover. In fact, can we improve upon the standard mixtures the Department of Lands and Forests produces? This year we intend to do a more extensive trial in the initial reclamation of the No. 8 mine area.

MR. KINISKY:

Is the seeding program in your experimental plots a hydro seeding program or are you using conventional methods?

MR. STEWART:

We are using conventional methods. At the moment it looks as though hydro seeding is going to be the method for steep incline work. Our experience was to try hand seeding on a small scale because this was felt to give the greatest possible percentage of germination. So hand seeding has been used throughout the whole of these test plots which are relatively small in area, an acre or so.

The seeding we're doing this year will be by standard, conventional methods. We've looked at hydro seeding for roadsides and that sort of thing. But if you're on an incline the conventional methods don't seem to have the success they do on relatively flat ground.

MR. KINISKY:

In seeding your test plots are you trying shrubs and trees or are you sticking strictly to forage crops?

MR. STEWART:

This is a little embarrassing to us at the moment. Initially we were sticking strictly to grasses, the idea being to get coverage and forage of some sort. However, following our discussions with the Fish and Wildlife Branch of the Department of Lands and Forests, we are planting shrubs which will provide forage for such animals as moose, rather than concerning ourselves solely with grass. It is a change of emphasis.

Initially, with very few guidelines, McIntyre Porcupine's whole idea was to cover it up, get it stabilized and reclaimed with grass. Now we're looking to something close to wildlife conditions. We can't say we'll do it altogether but this is our aim.

MR. KINISKY:

Let me wish you luck. I hope you will be successful enough to grow a golf course.

MR. STEWART:

Actually we have an ideal site. No. 8 mine would provide an admirable golf course at 5,000 feet with the most beautiful view you could wish for, but unfortunately we're bound to plant shrubs.

MR. DOWLING:

Could you give us some idea of the ownership of McIntyre Porcupine Mines?

MR. STEWART:

I honestly couldn't tell you offhand the composition of McIntyre Porcupine Mines' shareholder structure.

MR. DOWLING:

There has been a considerable amount of money invested in the mine and town. We know the Government of Alberta has invested a great deal of money in the Alberta Resources Railway. There is some concern throughout the province as to when not only McIntyre Porcupine but the people of Alberta will start reaping a reward for their investment. Is there any way you would be able to estimate that?

MR. STEWART:

If you talk about the corporate finances or the profitability, obviously McIntyre Porcupine's aim is to become profitable as soon as possible. No one wants to run a company and nobody can continue to run a company at a considerable loss. The end product of this would be the closure of an uneconomic mine. As much as we tried it was felt that in fairness to the shareholders and indirectly to the government it was not feasible to continue an uneconomic operation. We would like to be an economic operation as soon as possible. We would like to think it will be this year. We feel it will, in fact, take some time.

At the moment the open mine operations are on a small scale which, of necessity, uses small-scale equipment relatively expensive to operate. Until we get into the No. 9 mine I don't think the advantage of the size of equipment and the relative reduction in cost will become apparent.

MR. DOWLING:

I understand there have been a number of non-Canadians brought in to operate the mine because they have the knowledge and the skill. Is this correct?

MR. STEWART:

This was correct with the original operations. Coal mining in Alberta has been in decline for some years. The skills of a miner were, in many cases, either not available or committed to someone else.

In addition, underground mining envisaged by McIntypre Porcupine was a form called long-wall mining which is most prevalent in Europe

and to some extent in Russia but is not widely used in the United States or Alberta, particularly with today's mechanized methods. As this labour force wasn't available within the province, a certain number of workers had to be brought in.

But the policy throughout has been to employ Albertans in the coal mining industry if they're willing to work and undergo training, and this has been done.

MR. DOWLING:

Do you have an active training program for local Albertans to bring them into the industry?

MR. STEWART:

Until the closure of No. 5 mine in February we had probably the strongest mineworker training program Alberta has ever known. This took people recommended by the vocational department, capable of working in a mine but having difficulty gaining employment and possibly on social assistance. They were interviewed both by the government department and by McIntyre Porcupine. The trainees selected were given a training course at McIntypre Porcupine and then employed. Then as taxpayers, they contributed toward the support of others instead of living on social assistance.

MR. DOWLING:

To what altitude have you been attempting your reclamation?

MR. STEWART:

In the open pit mines our limitation to date is 5,240 feet. Mr. McKelvie, our geologist, has been responsible for the exploration trails. He may have established grassy reclaimed areas on the exploration trails at a high altitude. Mr. McKelvie, have we worked higher than 5,240 feet?

MR. MCKELVIE: [From the floor]

Dennis McKelvie, chief geologist at McIntyre Porcupine.

We have attempted reclamation at altitudes of 7,200 feet and have achieved some minor degree of success at that elevation. Unfortunately, in most of the areas at this elevation the wind strengths prohibit proper seeding and fertilizing techniques.

MR. DOWLING:

At what elevation is the boundary line where you can be guaranteed success?

MR. MCKELVIE:

We can be pretty well guaranteed a 30 per cent success rate under 6,000 feet.

MR. DOWLING:

What is the highest possible altitude you can mine in these operations?

MR. MCKELVIE:

Our present plans are to a maximum of 5,600 feet.

MR. DOWLING:

But you have already mined up to 7,200 feet, or were those test plots?

MR. MCKELVIE:

This was entirely exploration work.

MR. DOWLING:

Is there any problem with encroachment of spoil on watercourses?

MR. STEWART:

In our exploration we have normally been limited to within 150 feet of a watercourse. We normally wouldn't go onto a major one. We wouldn't drill and we would keep roads straight across the watercourse. Because of our concern about this we have increased the distance to approximately 400 feet in the designs of our mines. This is the closest we would estimate coming to a watercourse, again dependent upon topography and the quality of rock we put in. It really depends upon the sedimentation load that could be expected from a particular area. We are confident of stability. We do great testing on this and employ consultants.

Pollution by siltation is our major concern. To date, our experience has shown that chemical pollution will not prove a problem; in fact we haven't been able to locate a major difference between the basic water quality before and after mining. Our main concern in the design program of the slopes is sedimentation. We have perimeter ditches to trap the water and take it into settling ponds. In fact, when we apply we assure the government that our drainage facilities will meet their required standards for discharge into any main watercourse or river.

MR. DOWLING:

Do your underground mines present any problems with respect to iron pyrites that might possibly leach out with ground water?

MR. STEWART:

Fortunately no. Where we've had minor samples of pyrites in the water, normally the sulphur present is extremely low, under 0.5 per cent of the contents. It adds to the value of the coal. Sulphur in a coking coal produces a brittle iron. This is one of the greater values of the Smoky River coal.

Secondly, a lot of the sulphur isn't in the form of pyrites and the problem of acid water hasn't arisen so far. We monitor water discharges into the streams.

MR. DOWLING:

What limits are placed upon the bond you are required to post to guarantee reclamation of the area? Is it related to the amount of reclamation that has to be done or is it set at a specific sum under statute?

MR. STEWART:

I can't answer that directly. I don't believe it can be a statute.

People gain experience and decide how much reclamation is actually costing because until fairly recently there wasn't a great deal of reclamation work done. For No. 8 mine, which was developed in phases, we had to post a reclamation bond for each phase. The actual value per acre, which is normally a method for gaining this bond, has increased as they have found more realistic costs to guarantee reclamation.

MR. DOWLING:

Have you had a chance to review the new Land Surface Conservation and Reclamation Act, and can you live with the Act?

MR. STEWART:

I have a copy of the Act and have read it. I wouldn't like to comment at this time on the effect it would have on the company.

PRESENTATION BY

F. WYTHE

GRANDE CACHE CHAMBER OF COMMERCE

TO

ENVIRONMENT CONSERVATION AUTHORITY

PUBLIC HEARINGS ON

LAND USE AND RESOURCE DEVELOPMENT

IN THE

EASTERN SLOPES

GRANDE CACHE, ALBERTA

JULY 10, 1973

INTRODUCTION:

The Grande Cache Chamber of Commerce is aware the Commission will be informed as to the industrial resources, potential and topographical detail of the area. The chamber feels that to elaborate further in this area would be superfluous.

We would at this time like to go on record as favouring a controlled development of both industrial resources and recreational facilities in the Smoky River Basin.

We feel that the two diverse types of industry are compatible and desirable, and would contribute greatly to the economic base of this area and to all of Alberta.

Coal leases presently encompass approximately 162,000 acres. This is a relatively small percentage of the total area of land in the Smoky River Basin. The lands which offer the greatest recreation potential are outside of the coal leases. We refer specially to:

1. New Town of Grande Cache.
2. Willmore wilderness Park.
3. Native Land Holdings.
4. Pierre Grey Lakes.
5. Muskeg Falls and River,
6. Grande Cache Lake.
7. Victor Lake.

The Chamber feels that every effort should be made by the government to assist local initiative in developing tourist facilities in the Grande Cache area.

INDUSTRIAL DEVELOPMENT

1. We refer you to our presentation made to the Energy Resources Conservation Board at Grande Prairie, April 2, 1973. This brief outlines the attitude of the chamber with regard to the industrial development of McIntyre Porcupine Mines.

2. Forestry - There are sufficient timber resources in the Grande Cache area to support a forest industry venture. With the uncertain

future of Kakwa Logging Co., the chamber feels that private developers should be encouraged to locate in the Grande Cache area.

RECREATIONAL DEVELOPMENT

1. The recreational potential of the area - we refer to the report prepared for the Chamber of Commerce by D.H. O'Donnel and presented to the Crump Commission Hearings June 1973. This report emphasises the chamber's desire for planned recreational development using Grande Cache as the hub. This report provides practical guidelines for development of a local tourist industry.

2. The proximity of Willmore Wilderness Park to Grande Cache, its natural beauty and unique features make it a very desirable recreation area.

We recommend that the wilderness aspect be maintained. There is, however, very poor access to the area. The chamber feels that access should be developed so that the area may be enjoyed by a greater number of people.

3. Highway development allowing circle tours would lessen the overcrowding of facilities in National Parks, and allow families from urban centres to enjoy nature in the Smoky River Basin. The chamber feels that a public access to Grande Cache Lake is desirable and necessary to make Grande Cache a more complete vacation area.

4. The Chamber of Commerce enjoys close liaison with the Native area Committee and is sympathetic to their objectives for recreational development.

5. Construction of a Golf Course would satisfy another need for recreational activity; would spur the increase of tourist traffic, and strengthen the economic base of the area. This would require that the Department of Lands and Forest make land available to serve this purpose. Careful planning would be required to preserve the topographical beauty of the area.

6. There is a proposal before the provincial government for the establishment of a fish hatchery near the Milner generating station. The chamber looks with favor on this project as being an industry with decided tourism benefits.

7. Chamber has made application to the D.O.T. for upgrading our present airstrip. This would provide service for both industry and tourist orientated traffic. The airport could complement proposed Torrens River Development. We feel that air service is a number one priority for Grande Cache.

CONCLUSION

Industrial and tourist development both demand adequate access. The industrial development of the area has been made partly possible through development of railway and road from highway 16 to Grande Cache.

Tourist development would be greatly enhanced by continuing this highway through Grande Cache to Grande Prairie.

(We would make reference to "Route Study Grande Cache - Grande Prairie Highway", by Alberta Department of Highways and Transport planning branch. November 6, 1972). The chamber endorses route 3 as offering the greatest advantages to Albertans.

The Grande Cache area is one of the finest hunting and fishing and wilderness areas in the province. It is also one of the richest sources of coking coal in the world. There is a demand for all of these.

This area has been virtually untapped to date. Now, with the New Town of Grande Cache acting as a hub, and service centre, there is every indication that with controlled planning both industry and tourism can be developed to full advantage. THE CHALLENGE AND OPPORTUNITY IS OURS!

# CONSIDERATIONS FOR THE DETERMINATION OF TOURISM AS A SECOND INDUSTRY IN GRANDE CACHE

Prepared by

D.H. O'Donnell, President and Senior Planner,
P.E./Recreation Research and Planning Ltd.,
#101, 8708 - 106 Street, Edmonton, Alberta.

In conjunction with, and upon behalf of,

The Grande Cache Chamber of Commerce,
Grande Cache, Alberta.

For

THE CRUMP COMMISSION HEARINGS,
JUNE 1973.

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## I. WHY TOURIST DEVELOPMENT

At this time, the results of a proper market analysis are not available, however, the following information is presented as an indication of the tourist potential in the Town of Grande Cache and region.

The demand for use of wilderness areas outside of the National and Provincial Parks has increased dramatically in the last 3-5 years. Tourism in Alberta is considered to be the second largest industry due to the amount of leisure time that the average person has in our present society. On a National scale, it is considered to be the primary industry in this country.[1] Each community in this province that is situated in a naturally unique area has benefited from this fact.

According to current data analized, Canadian spending in Alberta amounts to approximately 57.2% of the total tourist income, or approximately $35 million; an average of $135.00 per person.[2] This represents approximately $45.00 per person.

Americans spending in Alberta amounts to 41.7% of the total tourist income, or approximately $25 million; and average of 180.00 per person.

A check on these declarations per person can be justified, if it can be estimated that the following expenditures are made by each person per day:

| | |
|---|---|
| Lodging ..... | $ 5.00 to $ 7.00 |
| Food and Beverages ..... | 6.00 to 7.00 |
| Auto services ..... | 2.00 to 3.00 |
| Misc and entertainment..... | 2.00 to 3.00 |
| TOTAL | $15.00 to $20.00 |

Assuming the average stay is 2-3 days,[3] the total expenditure per person per stay could be between $30.00 and $60.00 (an average of $45.00 per person.)

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1. Tourist Trends, Canadian Government Office of Tourism, Government of Canada Ottawa, 1973
2. One Party = 2.8 (3.0) persons
3. Resources For Rural Development, Economics Division, Alberta Department of Agriculture, 1965

Using this information, part of the answer to the question "Why Promote Tourism in Grande Cache" can be answered.

If 3,000 Canadians can be attracted in 1974, this would represent approximately 1,000 part groups of visitors. Economically, it would mean an income of approximately $135,000 (1,000 x $135.00)

If 25% of the number of Canadians (primarily Americans) were attracted this would represent about 777 persons or approximately 258 party groups. Economically, it could mean an income of approximately $24,830 (258 x $135.00)

The total ESTIMATED POSSIBLE income for 1974, based on these assumptions and allowing for a variance of ±10% would be between $144,000 and $176,000 (Mean of approximately $160,000.)

Of this approximated $160,000, spending breakdown could be assumed as follows:

TABLE I Breakdown of Estimated Tourist Income

| ITEM | NATIONAL DISTRIBUTION | | PROVINCIAL DISTRIBUTION | | MEAN | |
|---|---|---|---|---|---|---|
| | % | $ | % | $ | % | $ |
| Transportation | 30.3 | 48,480 | 22.8 | 36,480 | 26.5 | 42,400 |
| Food and Beverage | 21.8 | 34,880 | 34.6 | 52,360 | 28.2 | 45,120 |
| Accommodation | 12.9 | 20,640 | 19.7 | 31,520 | 16.3 | 26,080 |
| Preparation & Sundry | 10.6 | 16,960 | | | 5.3 | 8,480 |
| Sightseeing & Entertainment | 4.7 | 7,520 | 7.7 | 12,320 | 6.2 | 9,920 |
| Misc. | 19.7 | 31,520 | 15.2 | 24.370 | 17.4 | 27,840 |
| TOTALS | 100.0 | 160,000 | 100.0 | 160,000 | 99.9 | 159,840 |

Therefore in 1974, the potential income for

a. Transportation could range from $36,480 to $48,484 and average at approximately $42,400

b. Food and Beverage could range from $34,880 to $55,360 and average at approximately $45,120

4. Tourist Trends, Canadian Government Office of Tourism, Government of Canada Ottawa, 1973
5. Alberta Profile, Hospitality Systems Research Ltd. Edmonton, 1972

c. Accommodation could range from $20,640 to $31,520 and average at approximately $26,080.

d. Sundry spending could amount to approximately $16,960

e. Sightseeing and entertainment could range from $7,520 to $12,320 and average at $9,920

f. Misc. spending could range from $31,520 to $24,320 and average at $27,840

It is expected the growth of the Tourist Industry from year to year across Canada will range between 5% - 10%.[6] Projecting this mean (7.5%) to 1975, it could be declared that the tourist revenue in Grande Cache could equal approximately $172,000 assuming the resource information is valid, the application to the area is reasonable and the projections prove relatively true. A variance of ±10% could justify declaring that it may be possible to realize from $154,800 to $189,200 from tourist promotion in 1975.

NOTE: These applications of National and Provincial statistics can only be used as a guideline for the justification of the promotion of outdoor recreation - leisure - tourist involvement in Grande Cache.

More detailed analysis and more specific conclusions can only be possible after a detailed evaluation of tourist potential in THIS part of Northern Alberta.

As a result of this general overview and analysis, it can be assumed that the region between Hinton and Grande Prairie (specifically Grande Cache) could benefit considerably from tourist travel.

There is no doubt, in this point in time, that Grande Cache could use the revenue generated by such a movement of people.

The proposed highway, routed through the Town could contribute considerably to encouraging "loop trips" from Edmonton via Hinton to Grande Prairie to Hinton and return.

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6. Op. Cit., Tourist Trends

## II. HOW THE TOURIST INDUSTRY CAN BE REALIZED

It appears that in order to take advantage of the tourist traffic, recreation resource planning has to be done in three specific areas:

1. Conservation and Land Use

   It is not enough today to simply preserve an outdoor area, unique nature features must be allowed to be appreciated. We must develop a "co-operative" existence policy which is reflected in land use regulations and zoning.

2. Volume of Visitations

   Because of natural resource features, people want to experience the environment in every way possible. Proper planning will prevent premature deterioration of high attraction areas, protect micro-environments, and broaden the economic base of a particular region.
   Ontario and Quebec have considerable access to their forests and unique physical areas with fair to minimum deterioration.

3. Re-Forestation and Reclamation

   Becasue various mountains have large quantities of mareketable products, they can be of benefit to our Provincial and National economy. It is possible to extract these materials, re-establish the ground cover and forests and use the areas for outdoor recreation experiences all at the same time.

Tourism as a second industry is possible in Grande Cache. The following steps will justify, extend, and determine the pattern for development.

#1. Creation of an advisory committee to establish in detail, the terms of reference for a market analysis and inventory of recreation - leisure resources in Grande Cache and district.

Areas of concern should relate to:

a. Physical analysis by soil composition and topography.

b. Vegetation analysis by distribution and variety.

c. Drainage analysis by stream, creek, river, lake and swamp.

d. Wildlife analysis by distribution, variety, game traits and feeding areas.

e. Documentation of all unique features.

f. Human analysis of movement out from Town Site and in district.

g. Analysis of current Northern Alberta Tourist Trends.

h. Analysis of micro-climates.

i. Conclusions with regards to Good, Moderate, Poor conditions.

j. Recommendations with regards to use of various areas for recreation activity.

k. Priorities for Recreational - Tourism Development in Grande Cache and Region.

l. 2 alternatives for realizing recommendations.

ANY OTHER PERTINENT DETAIL DEEMED NECESSARY BY ADVISORY COMMITTEE

#2. Prepare a market analysis and inventory of outdoor recreation-leisure resources in Grande Cache and region.

a. Boundaries of study area to restricted by the number of unique natural features in the area.

#3. Preparation of a comprehensive plan for development of tourist potential in the area. Consideration should be given to:

Proposed recreation - leisure use
Access and egress
Program development
Auxillary economic benefits

ANY OTHER PERTINENT DETAIL DEEMED NECESSARY BY ADVISORY COMMITTEE

#4. Promotion of outdoor recreation - leisure amenities in Grande Cache and region. As the proposed road will probably not be completed for the next 2 - 3 years, the town will have to be considered as the major tourist distinction point. The resulting pressures, if documented will serve to adapt the Master Plan.

#5. Implementation of support services -

a. Updating the forestry trunk road

b. Start on the highway linking Grande Prairie, Grande Cache and Hinton.

c. Expansion of accommodations as determined by tourist trade.

d. Development of auxillary tourist service businesses.

PROPOSED TIME SEQUENCE

| STEP | TIME FACTOR |
|---|---|
| 1. Advisory Committee | One month from approval to proceed |
| 2. Market analysis and Inventory | 3 - 4 months |
| 3. Comprehensive Plan | 1 month |
| 4. Promotion | Fall 1973, Spring 1974 |
| 5. Support Services | Spring 1974 +. |

## III REQUESTS AND RECOMMENDATIONS

1. That a central bank of data related to outdoor recreation - leisure - tourism resource research, planning and development be established by the Government in order to draw together, and make more accessible information that exists in numerous Provincial Government Departments, Branches and Sections.

2. That a market analysis and inventory of outdoor recreation - leisure - tourism resources in the Grande Cache region be undertaken.

3. That as a requirement in the terms of reference, a recreation planner be included on the study team.

4. That funds be allocated by the Government, in any way possible, for the purpose of promoting tourism in Grande Cache during the winter of 1973-1974 and spring of 1974.

5. That the proposed highway be directed through the Town of Grande Cache in order to a. contribute to the establishment of a tourist trade in the town and region,

   b. prevent the fragmentation of commercial services so that they will be better able to serve the tourist traffic that will move through the region.

## IV PRIORITIES OF ACTION FOR TOURIST DEVELOPMENT IN GRANDE CACHE

1. Create a Tourist Inventory Advisory Committee with single representation from the following agencies:-
   - Board of Administrators
   - Native Area Development Committee
   - Chamber of Commerce
   - Peace River Regional Planning Commission
   - Alberta Forest Service, Parks Branch, Department of Lands and Forests
   - Department of Highways, Planning Branch

   Chairman to be elected to be contact with the research and planning team to be retained.

2. Prepare a market analysis and inventory of outdoor recreation - leisure - tourism resources in Grande Cache and region.

3. Present resulting document for public analysis and evaluation.

4. Prepare comprehensive Outdoor Recreation - Tourist Development Plan for Grande Cache and Region.

5. Promote and advertise use of the region for spring and summer of 1974.

6. Document impact of tourist trade and determine movement patterns.

7. Modify Comprehensive Outdoor Recreation - Tourist Master Plan according to impact forces.

8. Hire Tourist Development Office to co-ordinate, update, and modify, as required.

## V CONCLUSION

Latent outdoor recreation - tourist demand that would result from the provision of access (i.e. the proposed highway) and facilities is not predictable at this point. It may be that 1 - 3% of the population in the Northern part of CD - 14 use the existing Two Lake road. When developed, the percentage could go as high as 15 - 25%. It is not a known factor at this time.

In the same manner, the absolute effect of the highway passing through the Town or not is also unpredictable at this time. Further study is required considering all factors which resulted in the development of the alternatives with the emphasis upon tourist attraction. To this end, the priorities of action for tourist development are presented in this paper in Section IV.

PRESENTATION TO THE ENERGY RESOURCES CONSERVATION BOARD
603 - 6th Avenue, S.W.
CALGARY, Alberta

By the Grande Cache Chamber of Commerce

INTRODUCTION

The Grande Cache Chamber of Commerce wishes to express its support for the application by McIntyre Porcupine to obtain permission to start strip mining operations at Mine No. 9.

This Chamber strongly believes that conservation does not necessarily mean non-use, but rather that conservation is the foresighted utilization of forests, water, land and minerals for the greatest good, for the greatest number of people, for the longest period of time.

We also feel that the most profitable state of conservation for a given resource depends on the cost in other resources--natural, cultural and human, and that full consideration must be given to the cultural and human factors involved in this situation when a decision is made regarding the opening of the mine.

ECONOMIC BENEFITS

Approval of Mine No. 9 is essential to the economic development of the McIntyre operation, which in turn means the Town of Grande Cache and the Province as a whole will benefit in social and economic terms.

From a straight economic viewpoint, the mine has already contributed significantly to the provincial economy. Close to $88 million was spent to bring the mine into production; an additional $35 million was spent to build a power plant to use a mine byproduct and provide power for the provincial grid; close to $100 million was spent on a railroad to haul resources out of the area, and another $6 million was spent to provide road transportation to the mine and town. In addition, an estimated $10 million was spent to build the New Town of Grande Cache.

All these construction projects provided jobs for numerous Albertans and used materials manufactured in the province providing a significant boost to the provincial economy.

In addition, the operation of the mine results in a contribution to the economy of close to $7 million per year in wages and salaries and about $7.7 million per year in expenditures for maintenance, repairs, supplies and coal preparation. The mine provides employment directly for close to 650 workers and the service industry created by the presence of the mine has created jobs for another 350 to 400 persons, including 40 jobs held by natives in providing lumber for the mining operations.

PEOPLE BENEFITS

The mine has also made a sizable contribution from a "people viewpoint" by providing employment to a large number of people who were previously underemployed, unemployed or on welfare.

In a recent report on the mine training program undertaken by McIntyre Porcupine and the Provincial Government, R.H. Tubb of the Division of Vocational Education stated the majority of persons being helped by that particular program, (139 at that time), were people with a limited earning capability. He pointed out that some of the people involved had drifted from job to job, earning wages close to the provincial minimun, never establishing a career pattern and never developing a loyalty to a particular job or employer. He added that "the opportunity that this training program gives to such people to earn adequate wages is for some the first break they have had and a chance for a new life".

A review of payrolls for 57 of this group showed average incomes of close to $9,000 per year with income tax payments of almost $2,000 per year after they gained employment at the mine.

If the mine is now forced to close, it will have an extremely depressing effect on these people who have just been given a new lease on life.

With a rapidly increasing population there is ever greater pressure on recreation areas within the province. The flashing trout, the moose, the deer, the mountain trails and the magnificent panorama of mountain scenery in the Grande Cache area were, at one time, accessible only to the few people who were capable of handling the arduous trip

into this wilderness area. Today, this area rich in game, fish and majestic scenery has been made accessible to all Albertans because of the mine and the town it gave birth to.

The development of the area has also provided a concentrated population in excess of 3,000 persons obtaining most of their foodstuffs and consumer goods from outside points and contributing to the social and economic welfare of communities such as Grande Prairie, Hinton, Jasper, Edson and Edmonton.

FUTURE NEEDS

Development in the Grande Cache area is extremely important to the future of Alberta both from an economic and a people viewpoint. Our society is faced with rising unemployment, escalating welfare costs, increasing taxes and an increasing crime rate. If we are going to overcome these economic and social problems, we are going to have to use our resources effectively and take action now.

We need more jobs; we need recreation areas; we need wilderness areas and we need development in rural areas which will allow those desiring it to live in a rural atmosphere but still enjoy the comforts of big city living.

Attainment of these goals can be helped by development of the Grande Cache area where oil, coal, timber, mineral resources and majestic wilderness abound. However, development of industry takes considerable time and will come only if the present industrial development holds the community together until new development takes place.

We feel the opening of Mine No. 9 and the subsequent further development of the McIntyre Porcupine Mines is essential to the growth and development of the New Town of Grande Cache. If this basic industry becomes viable and expansive, other industries will be given an opportunity to develop and provide employment opportunities for more Albertans.

CONCLUSION

The Grande Cache Chamber of Commerce recognizes the problems associated with strip mining operations, but feels that with adequate

controls we can achieve compatibility between the requirements for tourism and mineral resource development.

We wish to stress the Chamber's desire to find a rational approach to multi-resource development with the mineral resources absorbing the financial shock of initial development.

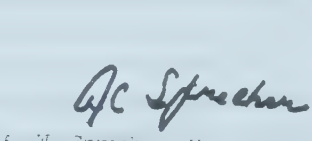
We suggest that those whose sole object is the preservation of our environment in its natural state are too narrow in their outlook and approach to conservation.

We do not feel that development of these resources in a well-planned manner is contrary to good conservation. In fact, it is our opinion that cutting off development at this time would be poor conservation technique.

Respectfully submitted,

[illegible], President
Grande Cache Chamber of Commerce.

[illegible]



A. W. Sprecher [illegible]
Grande Cache Chamber [illegible]

QUESTIONING BY THE AUTHORITY

MR. KINISKY:

The development of a tourist industry involves the question of access. People in the southern areas have been very angry at the endless number of access routes afforded them, while here in Grande Cache people keep asking for access. What is your stand? Do you really want access?

MR. WYTHE:

I represent the Chamber of Commerce which has many people. Some don't like access and some do, depending on which vested interest you belong to and also which vested interest is supplying the money to support your family. If you're working on a job and you don't need money from tourists, you don't want access. If you're a storekeeper and tourism makes money, I would imagine you would like access.

I think, in general, the Chamber of Commerce would support controlled access. This area is so new there is no access to it. It has not been developed with side roads or roads through farmers' yards which would open the area to the urban population.

I feel they want controlled access into Willmore Park. We aren't in favour of building roads into Willmore. We favour the idea of people enjoying Willmore either by walking or with pack trains. This is what we mean by access.

MR. KINISKY:

What is the opinion of the Chamber of Commerce as to the status of Willmore Park? It is called the Willmore Wilderness Park but it doesn't come under the wilderness concept because there have been all sorts of activities there. Normally wilderness status means that you exclude everybody; nobody goes in. Another concept of the Alberta Wilderness Association is the wildland idea. People can fish, hunt, ski and hike but motorized traffic is not allowed. What status would you like to see for Willmore?

MR. WYTHE:

I could answer that from the standpoint of two different types of people. For example, one person may want to drive immediately to an area and look at it from his car, and yet expects everyone else to walk.

The people here would enjoy Willmore if they could, but the great difficulty is getting into it. I buy many of the ideas of the gentleman from the wilderness committee and I believe the Chamber of Commerce would also. What does the term "wilderness" mean? Is it an area you can get into or is it an area you can't get into? There is a difference.

MR. KINISKY:

Getting on to the golf course question...

MR. WYTHE:

Yes, I'm all for it.

MR. KINISKY:

I've flown over this area near the airport quite often. It does look good. What would it cost to build a nine hole course and are you able to finance the building?

MR. WYTHE:

$119,000.

MR. KINISKY:

You think you can handle that financially?

MR. WYTHE:

Yes, I've got $10 and I'm looking for the rest.

This is very difficult. I corresponded with the Department of Lands and Forests and they were interested in my views on presenting a brief to you gentlemen on the reason for a golf course. I refuse to present a brief until I know where a golf course could be located. I have not been able to receive any confirmation of any land to be released for a golf course. If they released land somewhere within a seven mile radius of Grande Cache we could make a golf course out of it.

MR. KINISKY:

Has anybody made an official application for land for a golf course? I've heard the discussions going on for three years now.

MR. WYTHE:

Yes, I probably started them. I have made application by letter but not in a formal presentation because it has been turned down each time.

MR. DOWLING:

The Chamber of Commerce has close liaison with the Native Area Committee. Exactly what are their activities and what is your liaison about?

MR. WYTHE:

The Native Area Committee is the holder of the land tenure that was granted last year to the Native people. They have formed a committee to study and plan the development of their holdings, either for farming or for recreation. They have trained people helping them and have membership on the Chamber of Commerce. We keep in contact by informal relationships.

MR. DOWLING:

Who do you have in mind when you speak of controlling the planning?

MR. WYTHE:

Mr. O'Donnell, who is a professional recreational planner, mentions a recreational advisory committee in his brief. I agree with this concept of a committee made up of the Chamber of Commerce, the

town and other areas, government department people and professional planners.

To be given authority over a large area probably would infringe upon the Peace River Planning Commission. But a committee like this would be able to hear, study and give approval to development permits.

MR. DOWLING:

You would like to have a large element of local autonomy in this group?

MR. WYTHE:

Yes, with minimal government interference.

MR. DOWLING:

Has the Chamber of Commerce taken a position with regard to the Torrens River recreational development?

MR. WYTHE:

I would have to be very careful on this. Some members are in favour of it because of the isolation and unique features. Others in Grande Cache would like to see access to it from Grande Cache. The unique feature of Torrens River is that there is no access by road.

MR. DOWLING:

Would there be access from Grande Prairie?

MR. WYTHE:

Yes, there is a road now. Some of the Chamber of Commerce members feel - I believe rightly - that they would like the access from Grande Cache to get some of the benefits.

1057-1

# SUBMISSION OF MANALTA COAL LTD.

# ON

# COAL LANDS HELD

# IN

# THE SMOKY RIVER BASIN

MANALTA COAL LTD.
July 1973

PRESENTED BY: E.J. PANCHYSYN

# SUBMISSION OF MANALTA COAL LTD. ON COAL LANDS HELD IN THE SMOKY RIVER BASIN

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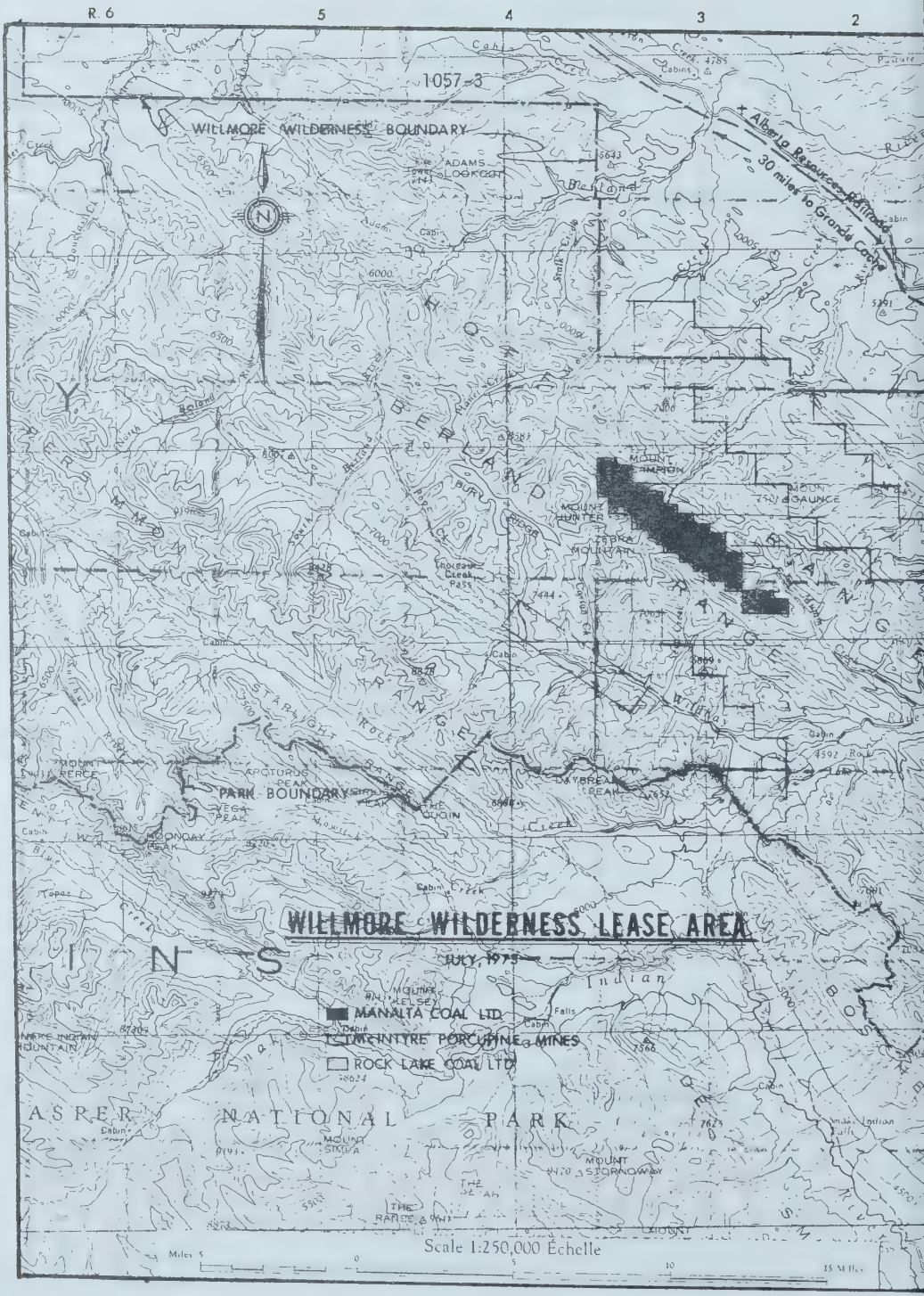
## Introduction

Manalta Coal Ltd. holds coal mining leases in three separate areas of the Smoky River Basin. These are located·

1. At the headwaters of the Berland and Wildhay Rivers and north west of Rock Lake. These leases lie between those held by McIntyre Porcupine Mines Limited and Denison Mines Limited (Rock Lake Coal Ltd.). More accurately these lease lands lie in the Athabasca River Basin, however they are included in this brief because information Bulletin No. 8, Fig. 8 shows these coal lands in the Smoky River Basin; they are also located in the Willmore Wilderness Provincial Park.
2. At the headwaters of Susa Creek and south of Peavine Lake and five miles east of the town of Grande Cache.
3. Near the headwaters of the Kakwa River and adjacent to leases held by Kakwa Mining Ltd. and Copton Excol Mining Limited (option to McIntyre Mines).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5
4
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WILLMORE WILDERNESS BOUNDARY
ADAMS LOOKOUT
Alberta Resources Railroad
30 miles to Grande Cache
MOUNT CAMPION
MOUNT HUNTER
ZEBRA MOUNTAIN
MOUNT GAUNCE
Thoreau Creek Pass
STARLIGHT RANGE
APOTURUS PEAK
PARK BOUNDARY
VEGA PEAK
MOONDAY PEAK
THE QUOIN
DAYBREAK PEAK
MOUNT PERCE
WILLMORE WILDERNESS LEASE AREA
JULY, 1975
MANALTA COAL LTD.
McINTYRE PORCUPINE MINES
ROCK LAKE COAL LTD.
MOUNT KELSEY
NAKE INDIAN MOUNTAIN
ASPER NATIONAL PARK
MOUNT SIMLA
MOUNT STORNOWAY
THE RANGE
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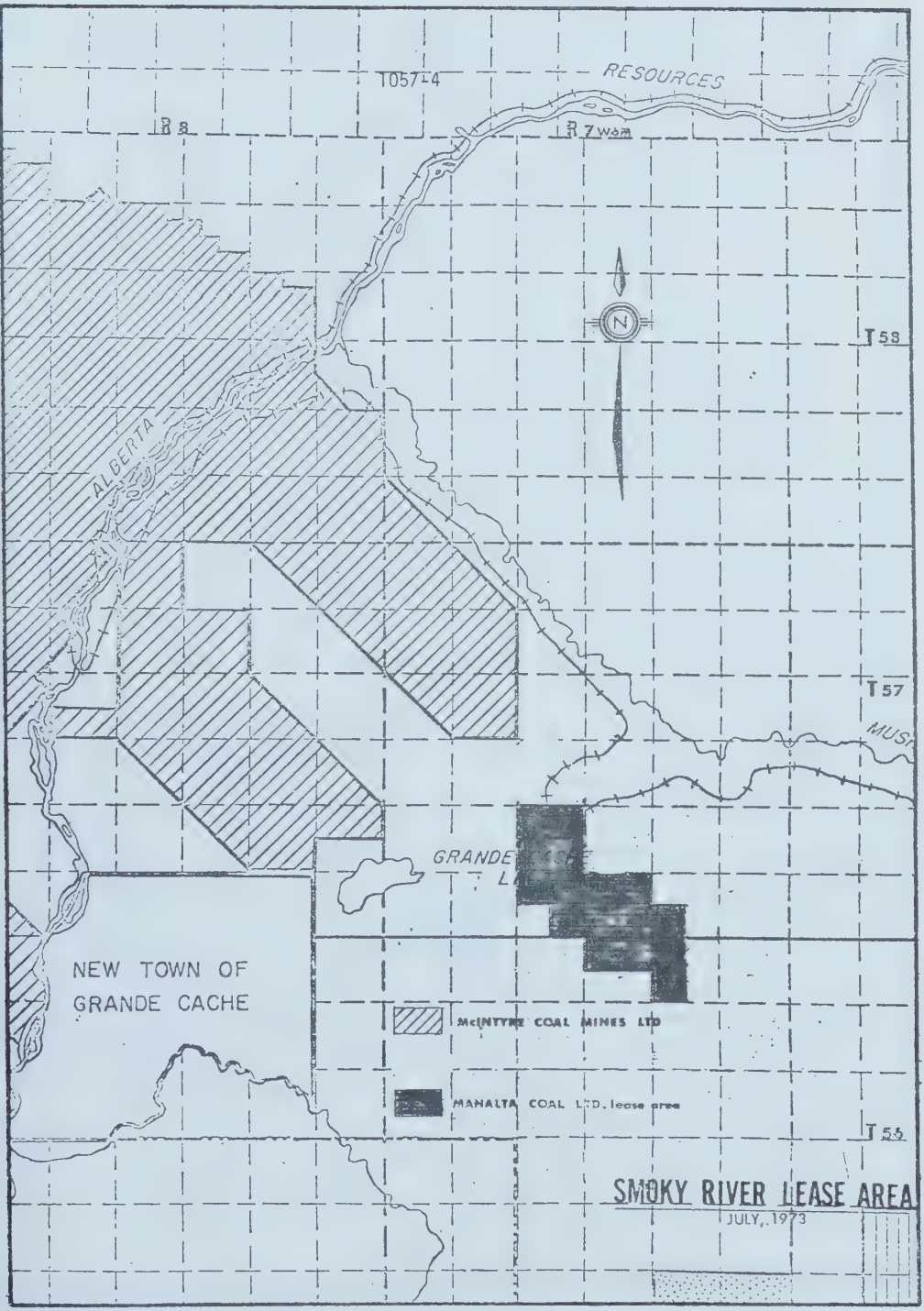
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McINTYRE COAL MINES LTD
MANALTA COAL LTD. lease area
T 56
SMOKY RIVER LEASE AREA
JULY, 1973

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1057-5
NOSE MOUNTAIN
ALBERTA
MT TORRENS
HAT MOUNTAIN
KAKWA RIVER LEASE AREA
JULY, 1973
MANALTA COAL LTD.
KAKWA MINING LTD.
COPTON EXCOL LTD.
Fire Tower
RIDGE
Falls
Rapids
KAKWA MTN
MT MAY
Scale 1:250,000 Échelle

A brief description of each of these properties along with an indication of future planning follows.

Willmore Wilderness - Rock Lake

These coal leases comprising 4800 acres were acquired in February, 1969 by a competetive sale held by the Department of Mines and Minerals. The lands then and now are within the boundary of the Willmore Wilderness Provincial Park. A brief by Denison Mines Limited on their coal property which lies to the south west of our lands was presented in Hinton, Alberta last July 3rd, 1973. Our properties have been explored by helicopter and hand trenching. Coal seams have been traced on the surface but the structure at depth is not known nor is the coal quality and thickness. No work was conducted in 1972 because of the refusal of the Department of Lands and Forests to permit any disturbance of the surface even by hand trenching.

The property lies at an elevation of 6500 feet to 8000 feet. The coal bearing beds are in the Luscar Formation which is the same as those mined at Luscar and Grande Cache. These properties have both underground and open pit mining potential and we believe that total reserves are insufficient to warrant a preparation plant and transportation systems on its own in the future. Development of these coal leases would likely only occur if adjacent properties were also developed.

Smoky River - Susa Creek

These coal mining leases were acquired in 1965 and are part of a coal reservation of a much larger area that was acquired in the same year. This property containing 2600 acres has been explored to a moderate degree and seam locations quality and quantity are generally known. The structure is amenable to open pit mining to yield a relatively small quantity of coking coal in the order of three million to five million tons, underground reserves would exceed 10 million tons. Three seams are known to be available for mining but the maximum thickness of any one seam does not exceed 20 feet. The north end of the property is adjacent to the Alberta Resources Railroad. In 1970 a feasibility study for providing raw coal to McIntyre Mines was made with a view to assisting McIntyre in their coal supply because of their problems with underground mining. The study showed that the major drawback was transporting coal to the McIntyre preparation plant because a truck route would have required a 21 mile haul and conversely the C.N.R. (operators of the A.R.R.) did not provide a better freight rate for hauling the coal by rail to the preparation plant, a similar distance.

In 1973 a preliminary proposal was made to Alberta Power Ltd. to mine and deliver coal from this property to the H. R. Milner Power Plant located adjacent to the McIntyre Preparation Plant. The viability of this proposal depends in part on the ability of McIntyre to provide sufficient middlings coal to fuel the power plant.

At McIntyre's present rate of production it does not appear sufficient middlings will be available to fuel the power plant at medium to high capacity factors. We understand that Alberta Power Ltd. have under consideration our proposal and other possible sources of fuel for their power plant.

A total of $130,000. has been spent to date on our Smoky River - Susa Creek coal lands and all trails and drilling sites have been reclaimed and reseeded and excellent grass growths have been obtained. The topography in the area is reasonably gentle and elevations vary from 4500 to 5500 feet above sea level. It would appear that coal from these properties would be utilized in the not too distant future for either as a raw coking coal supply to the McIntyre preparation plant or alternatively as a fuel to the H. R. Milner power station.

Kakwa River

These coal mining leases comprising of 5100 acres were obtained by bidding on a sale conducted by the Department of Mines and Minerals in May, 1970. The exploration work conducted on our lands to date has consisted of geological reconnaissance with access by helicopter. From the geological work done it appears that the coal bearing beds generally lie from flat to 20 degrees of dip and open pit potential is not particularly attractive. The adjoining property to the west held by Kakwa Mining Ltd. has been explored extensively by Cyprus Mines on an option basis from Kakwa Mining. To the south east the Copton Excol Ltd. property contains apparently good

reserves and we understand this property is under option to McIntyre. Our future plans relating to these lands is to await developments in the world coking coal markets and it appears unlikely that mining on our property and the nearby adjacent lands will take place in the near future. Additionally some form of transportation in the Kakwa River Valley will be necessary before exploration can proceed.

MANALTA COAL LTD.

E. J. Panchysyn

QUESTIONING BY THE AUTHORITY

MR. KINISKY:

We've been told by the coal operators that there is a world energy crisis, and I am concerned about thermal coal being wasted. I have been told none is wasted in an operation such as yours in Luscar and then I find out there is some waste. What is the truth?

MR. PANCHYSYN:

Of the coal at the washery plant, 25 per cent is rejected. This 25 per cent goes either into the pit or the settling pond. Approximately half of that coal can't burn, and probably even more than half is ash. It would have a heat value of 6,000 to 7,000 BTUs per pound. It would be difficult to burn in the H. R. Milner station because that station is designed to burn coal of around 9,000 BTUs per pound. The middlings provided probably have an ash content of 30 per cent. If the specification were relaxed by the Japanese, probably some of the coal we're burning could be sold to them. The problem isn't difficult to pin down.

The bulk of our coal for firing power plants will come from the Prairies in the next 20 years because it is much cheaper.

MR. KINISKY:

You talk about having excellent grass growth on your Susa Creek explorations. How long has that grass been planted?

MR. PANCHYSYN:

About three years.

MR. KINISKY:

Have you done any fertilization since planting time?

MR. PANCHYSYN:

No, we fertilized it at the time but we haven't fertilized it since.

MR. KINISKY:

How is it looking right now?

MR. PANCHYSYN:

I haven't seen it this year but it was all right last summer.

MR. KINISKY:

It withstood the winter with no trouble at all?

MR. PANCHYSYN:

Yes.

MR. KINISKY:

What about natural reseeding? Have any trees or shrubs started to grow?

MR. PANCHYSYN:

There are a few poplars of very small growth.

MR. KINISKY:

That is probably at a pretty low elevation.

MR. PANCHYSYN:

Yes, it is around 5,000 feet or a little less.

MR. DOWLING:

Has your company approximately 10 leases around the eastern slopes?

MR. PANCHYSYN:

Eight to ten, but I'm not sure. I would have to count them.

MR. DOWLING:

If your company were free to go ahead, which of these properties would you propose to develop immediately?

MR. PANCHYSYN:

The Gregg River at Hinton, next to the Luscar-Cardinal River operation, is on the drawing board.

MR. DOWLING:

What might come after that, or would you be giving away trade secrets?

MR. PANCHYSYN:

Not really. To make an operation economically viable we would have to consider adequate reserves. Our next largest property in the foothills would be in the Highwood area. All the other properties are too small to operate by themselves except those with high volatile bituminous coals located in the Mercoal-McLeod River area.

1059-1

# LAND USE AND RESOURCE DEVELOPMENT IN THE EASTERN SLOPES OF ALBERTA

A Brief Submitted by :

THE FEDERATION OF ALBERTA NATURALISTS

Presented to

THE ENVIRONMENT CONSERVATION AUTHORITY OF ALBERTA

at the

GRANDE CACHE PUBLIC HEARINGS

JULY 10, 1973

Presented By: Dr. J. Powell

## INTRODUCTION

We wish to commend the Government of Alberta for giving the citizens of Alberta and others the opportunity to present some views on Land Use and Resource Development in the Eastern Slopes. We also wish to commend the Environment Conservation Authority and the various Regional Planning Commissions and Committees for the Information Bulletins that have been made available, we only wish that they had been made available earlier so that greater use and study could have been made of them. Long summer evenings with emphasis on gardening and leisure activities are hardly conducive to detailed study and getting people together to work on a co-operative brief. The Federation of Alberta Naturalist appreciates this opportunity to present a brief to the Environment Conservation Authority.

The Federation was formed in 1970 to bring together the Natural History Clubs and Societies in the Province. It is presently composed of seven organizations - the Alberta Natural History Society of Red Deer, Bow Valley Naturalists, Buffalo Lake Naturalists, Calgary Field Naturalists' Society, Edmonton Bird Club, Edmonton Natural History Club, and the Lethbridge Naturalists' Society. The Federation is directly affiliated with the Canadian Nature Federation and elects a Director to the National body. In this brief the Federation intends to summarize the concerns of the naturlists of the Province with regard to the Land Use in the Eastern Slopes, and to elaborate in more detail on some points.

## ADMINISTRATION

We believe that the Eastern Rockies Forest Conservation Board followed the correct principles when managing the renewable resources of the Conservation Area of the Eastern Slopes, but were often hampered by the actions of other Departments of Government over which they had virtually no control or jurisdiction. We would suggest therefore that for the immediate future the responsibility for the mountain foothills areas should rest jointly with the Department of Lands and Forests and with

the Department of the Environment, with no other Government having the right to over-rule the judgement of senior personnel of these Departments, including for the disposition of surface and sub-surface mineral rights. Multiple use of certain areas then would have a chance to be developed effectively, instead of the present muddled or unco-ordinated use which causes frustrations for some users. The views of personnel from other Government Departments should obviously be sought and heard, and the proper vehicle for this could be the existing Conservation and Utilization Committee with the addition of a member from the Department of Culture, Youth and Recreation, a Department which could make a valuable contribution.

Need for inventories and further studies - MASTER PLAN

The Eastern Slopes which form a big portion of the Public Lands of Alberta, especially in the southern more populated half, represent a unique natural landscape with a very diversified natural history the distribution and ecology of which has received little study except for a few species, but the relationships of even these species to man's activities is little known. The area must be thoroughly studied, zoned effectively, and managed positively if we are to meet the great variety of needs for non-renewable and renewable resources, and especially the rapidly increasing demands for recreational use. Funds available for Resource Management and Resource Research studies must be increased many times if Albertans are to use, preserve and appreciate our landscapes and natural environment.

First we would suggest that the Government proceed very slowly in approving any new developments or expansions of existing developments, or changes in land use. The Government, through these hearings, has requested proposals for developments, but by doing so they have hastened the normal receipt of proposals and we would suggest that many of these may be premature. Development and changes in land use are also premature for the prior need is for a Master Plan, with zoning to protect wildlife habitat and watershed, based on knowledge and study of the area and its

capabilities and carrying capacity. Such a Land Use Master Plan would involve the systematic assignment of land to its best use based upon physical and biotic capabilities, economic feasibility, and social impact. Land capability, in this sense, is the potential for sustained use under defined management systems without any significant deterioration of the land resource. Only after evaluating land capabilities and economic and social values can an integrated resource management plan be developed for the area. Therefore, before approving major developments or committing areas for single resource use, the Government should wait for the completion of all phases of the Foothills Resource Allocation Study. The Canada Land Inventory of Land Capability is also nearing completion and much of the information will be valuable for use in broad regional policy planning, although consideration of water and economic minerals were omitted in the C.L.I. study. However, there are still very large gaps in our knowledge of the area. Only 60% of the area has been covered by soil survey data. The forest inventory data is more than 10 years out of date and needs to be looked at in a new light. Only limited areas have been surveyed for archaeological sites. The Parks Branch has just initiated a Resource Inventory of existing Parks in Alberta, but only one of the four under study this year - Entrance Provincial Park, falls within the Eastern Slopes - seven others require to be covered. We have a fair inventory of big game, but little is known of the rest of our fauna and flora in this area, as was pointed out by the first President of our Federation, Dr. M. T. Myres, in a personal brief presented at Calgary. Even for the prime use of the Eastern Slopes - as a watershed - we know very little and much research needs to be completed as indicated in the brief from the Alberta Watershed Research Program. A fair inventory of potential oil and gas and mineral deposits probably exists, however most exploration techniques used in the past decade are incompatible for much of the area and very strict regulations must be employed if they are to be used in the future.

In the development of a Master Plan all committed and uncommitted Crown Land should be considered, and the present use or committed use

should not overrule the develpment of a comprehensive plan. If necessary short and long-term committments in certain areas should be changed if this can be shown to be in the interest of present and future generations of Albertans. Some areas must be reserved for single purpose activities, this may be because of a need to protect an area, i.e. as a watershed, or because of the advanced development of an area by a resource industry. Other areas may be designated for dual or multiple use, however, there may still be a prime use because of limiting circumstances (e.g. dedicated areas such as National Parks, Indian Reserves; present land use; ownership; ecological and cultural resources). The present land use of an area may be shown to be an under-utilization of the land resource, or not desirable for social or economic reasons, and therefore needs to be changed.

Need for Natural Parkland and Park Policy

Alberta urgently requires a classification for park and wildlands. We are aware that various other groups and an ECA sub-committee are pushing for this or are actively working on a classification. The following classes of park should be included in any classification - primitive or wilderness, recreational wilderness, wild river, natural environment, recreation (includes campgrounds), nature reserve, and historical parks. A regional park would include combinations of the above classes. For the effective management of park lands, a system of zoning land within parks is required, so that park lands are allocated to their optimum use relative to the class of park and degree of development, use and protection required. This will permit reasonable flexibility in management while ensuring the necessary protection of park lands from incompatible uses.

For the recreational use of the Eastern Slopes a system of management similar to that developed for the National Forests in the Oregon Cascades might be developed (see April 1969 issue of Western Forester). There the following six recreation management zones are recognized: -

Wilderness, Study, Special Interest, Recreation Occupancy, Alpine, and Landscape Management. On other lands in the Oregon Cascades, other uses such as timber, range, forage, water and wildlife have a greater influence than recreation in determining management goals.

In planning parks in the Eastern Slopes (and in areas adjacent to urban centres) it must be remembered that the "wilderness" experience is only for some, we must supply other forms of environmental recreation to encourage people to move from the controlled urban environment to the natural environment (Boothman 1973). At present most people using wilderness and natural park areas are a minority belonging to the high and middle income and better educated sector of society even though costs of this type of recreational experience are comparatively minimal. There is a need for a highly integrated park system from community park through large city parks, to regional recreational parks, Provincial Parks, National Parks and Provincial Wilderness Areas. For the majority of Albertans the Eastern Slopes has the potential to provide regional recreational parks, wild rivers and wilderness areas.

Wilderness Areas

We strongly support the proposal of the Wild Kakwa Society for a wilderness area in the drainage of the Kakwa River with a restrictive development buffer zone. We also generally agree with the proposals of the Alberta Wilderness Association for the establishment of a system of recreational wilderness parks. We are very concerned about the recent change in the status of 300 square miles of the former White Goat Wilderness, why was this allowed? At the first opportunity full wilderness status should be returned to this area. There is a need for this form of protection for all key watershed and wildlife areas on the Eastern Slopes, such areas should only have non-intrusive, non-facility oriented types of recreation. Care should be taken that the proposed recreation wilderness areas do not become the hunting reserves of outfitters! Should all these proposals not be considered for recreational wilderness areas

at this time, then they should be considered for Provincial Park or Nature Reserve Areas with suitable zoning and protection to ensure the maintenance of the natural environment of these prime areas. Unless large areas of the Eastern Slopes are given protection now from uses which are incompatible with preserving the natural environment, then it will not be possible for future generations to find such areas. It is better now to protect more than is immediately required by Albertans today so that future generations will have some flexibility in designating their land use requirements.

Park Areas

At the present time there is a paucity of Provincial Parks in the Eastern Slopes area, especially in the area north of the Bow River, where only Entrance and Crimson Lake are to be found. Consideration should be given to establishing several large (over 5000 acres) Provincial Parks in this area, and further parks on the forestry road near Waiparous Creek and between the Highwood River and Coleman. We heartedly support the suggestion presented earlier by our Vice-President in a personal brief and supported by the Bow Valley Naturalists that the area at the foot of Mt. Laurie-Yamnuska should be made into an interpretative natural area and form a portion of the Bow Valley Provincial Park. The proposal for a portion of this same area to be used for the Bow Valley Wildlife Park is not warranted purely on the grounds that a Wildlife Park is already being developed in the same area.

Several of the rivers should be considered for Wild River Parks with a minimum protected area of 400 feet from the shorelines and with only one or two access points for vehicles. Suitable rivers might be portions of Castle River, Livingstone River, Cataract Creek, Bow River, Clearwater River, Athabasca River, Wildhay River and Kakwa River.

Natural Areas

We commend the work of the Natural Areas Committee of the Department of Lands and Forests, and we trust that their draft policy statement

concerning the various types of natural areas in the Province will soon be approved and that further areas which have been reserved will be established as natural areas with appropriate degrees of protection. The present protection given the existing six natural areas under the Public Lands Act is not satisfactory. Changes in the status of natural areas and ecological reserves should also only be made in the Legislature rather than by Order-in-Council. Many of the potential IBP - CT ecological reserves are situated in the East Slopes area and we hope that most of these will be recognized and receive protection. It is very important that various sized natural areas with unaltered representative or unique fauna, flora, geology, or other features of special interest be preserved and protected with the area, especially in zones removed from areas whose prime use is wilderness. Other special natural sites such as the ice caves near Elbow Falls and Cadomin, and limestone caves should be given protection, and it may be advisable to have them closed to the public or only open under controlled conditons. Research Basins and certain Ecological Reserves may also require similar protection, and as mentioned later hunting should generally be excluded from such areas. Some ecological reserves should be established primarily for educational purposes. It is proposed that a separate Act should be established to set up and protect the above mentioned natural areas, special natural sites and ecological reserves. Existing bird and wildlife sanctuaries should also be included in the scope of the Act and given similar protection. Such an Act should include a clause excepting such areas from the effects of other Acts which might adversely compromise the value of such areas.

Archaeological and Historical Sites

A complete inventory of archaeological and historical sites is required for the whole Eastern Slopes. These are a part of our cultural and historical heritage and once disturbed can never be reclaimed. We welcome the Alberta Heritage Act giving protection to such sites, but they must be protected from commercial and industrial development, vandalism, and unnecessary destruction. Excavated archaeological sites can be

used as educational attractions, providing they are adequately policed. Similarly historical sites and buildings should be preserved. For example the Superintendent's Cottage and "Colonel's" Cabin on the Kananaskis Forest Research Station are interesting log buildings threatened with destruction, which could be set up as a museum showing the development of the forest industry in the Eastern Slopes. Early mining buildings and sites, possibly in the Crowsnest and Coal Branch, could similarly be used to show mining activities from those early days to the present.

Buffer Zones and Developments

We are very concerned that a buffer zone, with no developments, be maintained adjacent to the National Parks and the Willmore, White Goat, Siffleur and Ghost River Wilderness Areas, and other proposed wilderness areas. It is essential to have such buffer zones if the National Parks and Wilderness Areas are to fulfil the role for which they were set aside. The buffer zone needs to be of variable width depending on the wildlife and other values, including scenic, of the adjacent park or wilderness areas; in general they should be a minimum width of at least 5 miles. In areas where developments already exist in near proximity to the National Parks, such as around Harvie Heights, no further developments should be allowed between existing facilities and the Parks. We recognize that there is a need for commercial and recreational developments to be established in the transportation corridors leading to the National Parks to take pressure away from the Parks, but such developments must consider the use and zoning of the adjacent Parks and therefore be located at a greater distance from the Parks. This need for viable buffer zones is one reason we are strongly opposed to the location of the following proposed developments: Assiniboia, Mount Rundle Village, Banff Recreational Park, The Odyssey, Mount Cline Leisure Resort, Recreational Area West of Sundre, and the Folding Mountain Recreation Area, and several smaller proposals for campgrounds in the transportation corridors leading to the National Parks. With proper zoning of the

East Slopes suitable zones would be indicated for such developments. Many of these developments cover areas larger than existing Provincial Parks and this is not reasonable. We recognize that some areas have been selected for their potential for skiing, but equally good areas, not suitable to chinooks which may be a problem in some of the suggested locations, are available outside the desired buffer zone. Where at all possible strip developments along corridors should be avoided. The present approach to Banff National Park with its "lights" is not compatible for a National Parks experience, such development must not be allowed on Highway #16 near Jasper Park National Park, nor on the David Thompson Highway. Resource based industries, such as clearcutting of forests, strip mining and overgrazing, if allowed adjacent to the National Parks or Wilderness Areas, may have a greater potential impact on the values of such areas than do the recreational land uses, by destroying habitat, creating pollution, or by providing new access to previously remote areas, which often disrupts wildlife range or cuts migration routes. This is another reason why a regional Master Plan must be developed for the whole area so that prime or secondary uses can be indicated in the various zones. Once a provisional Master Plan has been developed, citizens should have the opportunity to discuss the plan through Public Hearings and Meetings. Environmental impact statements are essential for all developments, and individual hearings should be held for all major developments. There must also be continuing study of environmental impact of resource industries, recreation and other uses on various zones of the area, with necessary feedback to enable changes to be made in present and future planning and policy regulations.

Roads, Vehicles and their Use

The present design standards for highways in the Eastern Slopes, as employed for the proposed Kananaskis Highway, cannot be justified. The Government needs to develop a scenic and recreational design standard for a speed of 50 m.p.h. or less. Construction work has been carried out on the northern and southern portions of the Kananaskis Forestry Road.

Travel on the southern portion is extremely hazardous due to coal transportation. The right-of-way of the northern portion was widened and cleared without any arrangements being made to utilize the forest resource destroyed. Impact studies of the road layout were also not undertaken until after the clearing. The existing road should be paved, and only where necessary for public safety should the road be widened or diverted. Similarly there is no need to drastically upgrade, the forestry trunk road between Highway #1A and the Coal Branch area beyond paving. Exploration roads should meet very strict construction regulations, as more environmental damage is caused by such roads. Adequate prior surveys should ensure against trial and error routing of exploration roads. Bulldozing of such roads in the sub-alpine and alpine vegetation zones, such as occurred in the Panther River and Highwood Summit areas, should be prohibited. Exploration roads, unless of a semi-permanent nature should be closed to the public. Operation on such roads should be strictly controlled and governed by seasonal conditions. All abandoned temporary access roads should be reclaimed and reforested to prevent erosion, being paid for by the exploration or development company, not at public expense. Your attention concerning design standards for forest roads is drawn to a paper by Adamovich (1971) where he discusses such roads from an aesthetic view point. Road access should be provided to, but not through natural, wilderness, or wild river areas. Public road allowances are constantly being closed in the agricultural areas of the Province without any gates being established for public access, similar developments must not be allowed to occur in the private and leased areas of the East Slopes. There is also need for the clarification of policy on public access to and within public lands, particularly with respect to hunting, fishing and other recreational pursuits and the use of all terrain vehicles in the area. ATV should be restricted to certain roads and trails, except in special 'park' areas set aside for their use where environmental impact will be minimized, or when used in emergencies or by management services. Snowmobile use should be banned from alpine, sub-alpine or other fragile areas where any disturbance can be particularly

disastrous to the vegetation and terrain, and also from all high-use ungulate areas. All stream crossings by ATV's must be by the most direct safest route. ATV's should be prohibited from travelling along stream beds, unless ice covered, as aquatic life is disturbed.

The use of power boats should also be limited to certain lakes and larger rivers in the area where they will have limited effect on other recreational use. Considerable thought also needs to be given to restrictions on resource and recreational flying and the placement and use of airstrips (airports) in the area.

## Grazing

Grazing resources must be carefully controlled and zoned. Grazing distribution problems must be corrected immediately. Periodic management checks, at least annually, should be an integral part of each grazing system. Anderson and Currier (1973) discuss methods of evaluating zones of utilization. All grazing leases must be short-term so that conflicts between domestic stock and wildlife, especially the ungulates, can be minimized. Grazing should be restricted in areas known to be used heavily by ungulates in winter, and be excluded from areas used intensively for summer recreation. Special attention must be given to the trampling of stream banks and wet areas by cattle, creating erosion problems and deterioration of fish habitat. Grazing by cattle and horses should be regulated on logged areas until adequate size forest regeneration has been established.

## Wildlife

By "Wildlife" we mean all the natural fauna and flora of an area, not just those species which presently represent a comsumable renewable resource, such as big game, upland birds, fur-bearing animals and certain fish species. The Eastern Slopes possess a great diversity of wildlife because of a variety of habitats, this is very marked in the narrow southern area where prairie grasslands and alpine meadows are found

within a few miles with various vegetation types between them. All wildlife populations, be they faunal or floral are delicately balanced, and are dependent on particular types of habitat being available. Man's land use of the area has greatly reduced the availability and carrying capacity of several of these habitats. Unless great care is taken many species will be endangered, and species evolutionary trends which have taken thousands of years to evolve since the retreat of the ice sheets from the area will be gone overnight.

Co-operative planning between Federal and Provincial authorities is paramount for the management of a number of ungulates and wide-ranging carnivors which regularly move back and forth between the National Parks and the Eastern Slopes. It is primarily for this reason that buffer zones must be maintained as land use practices adjacent to the National Parks or Wilderness areas could adversely affect the role of these areas for wildlife. The C.L.I. Land Capability maps indicate a prime classification of the area for ungulates and especially all winter ranges. Waterfowl capability however has a low rating, but all wildlife, such as smaller mammals and the over 200 species of birds which inhabit or pass through the area on migration are an important nonconsumptive recreational and aesthetic resource. All activities in important ungulate ranges must be very carefully managed and regulated to minimize the adverse effects on the wildiife. Logging can have a beneficial effect on some forms of wildlife by opening up closed canopy coniferous forests, as long as shelter and travel areas are left in the area. However, the ungulate populations in such recently cut areas should be managed to prevent heavy browsing of forest regeneration. Within the area right-of-ways must be left as natural as possible and spraying with defoliants must not be allowed.

Hunting

Some areas should be zoned as non-hunting in certain years so that the non-hunter can continue to enjoy the outdoor experience without being disturbed or endangered by hunters. This would also give wildlife

populations a chance to recuperate to a level where future hunting activities in the area are likely to meet with greater success. The problem of native people being able to decimate local areas of all big game needs resolving. These citizens of Alberta must also submit to the requirements of modern day wildlife management, possibly through limited harvest areas and seasons, a maximum number of animals per family or band, a limited 'cow' season to prevent multiple kill of unborn 'calves', and a system of declaring the number of each species and sex killed in each area to assist the operation of the game management programs of the Fish and Wildlife Division. The establishment watershed research basins, such as Marmot, Streeter, Deer Creek, Tri Creeks and Cache Percotte, and other designated research areas should be excluded from hunting zones, as such activities may adversely affect research programs.

Fishing

We are against the introduction of non-endemic fish species into the streams and lakes of the Eastern Slopes. Fish management should be continued whereby some clearly defined areas are closed in certain years. Fish stock plantings may endanger the local fish stocks, and such planting programs may introduce fish diseases where none existed before, which are then spread through new river systems. More research is required to give background information on the invertebrate fauna on which the fish populations depend and to assess the effect of non-renewable and renewable resource activites on fish populations. Certain fish species are extremely vulnerable to habitat deterioration, and more must be known about the relationships of species with their environment before the effects of resource development can be adequately assessed.

Recreation

All types of recreational activity should be catered to in the Eastern Slopes, however, some recreational activities are incompatible not

not only with other renewable resource uses, but with each other. Intensive recreation, requiring facilities such as downhill skiing, should not generally be allowed in prime wildlife and watershed area. The area requested by Pidgeon Mountain Resort is much too large and we question the intent of developing a ski resort on an area already shown to have a paucity of snow in most years. More attention should be given to an assessment of the required climatic parameters for developments which are dependent on a climatic resource. For example ERTS photographs taken I believe on January 23rd of this year showed that there was no snow in the Camp 1 area of the North Western Pulp and Power Lease Area adjacent to the proposed Folding Mountain Recreation Area; unfortunately I don't remember what the conditions were in that area but I suspect they had deteriorated to a certain degree from the point of skiing. A further point concerning large recreational projects, we feel that only the land needed for the actual development of facilities should be controlled by the developer, and that these controlled areas should be on a lease basis. We urge that Public Land should not be sold for private resource or recreational development.

Motels, trailer courts or serviced camp sites should similarly be prohibited in prime wildlife and watershed zones, and should generally be restricted to transportation corridors. Where established every effort should be made to blend them with the natural environment to prevent "eye-sore" developments. Large trailers can consume an excessive share of space in campgrounds and ideally should be accomodated separately, or in segregated areas in one campground. Cottage developments should not be developed along lakeshores which should at all times be available for the public. Primitive camping sites, with an access road but few facilities, can be accommodated in most zones except the prime wildlife and watershed zones. A high quality camping experience usually goes along with a good campground design, regular maintenance and orderly management. Youth hostels of restricted size and offering primitive facilities are acceptable close to the Forestry Road. We do wonder why 220 acres has been requested for the Kootenay Plains hostel, and is there not a need

for larger hostels at some points? These hostels should be spaced at distances suitable for one day walking or bicycle riding. Motorized vehicle travel between hostels should be discouraged, as is common practice in Europe. A series of hiking backpack trails should be developed, possibly following historic packing trails, to tie up with the Great Divide Trail (Knapik and Landals 1972), youth hostels (present and proposed) and major access points. Trails should also be provided for horseback riding at several locations, but location of such trails is very important as certain habitats and sites are extremely prone to deterioration by horse traffic. Other trails for cross-country skiing, snowshoe travel, and trail bike riding should be developed and tied in with points with primitive or inexpensive overnight accommodation. Interpretive nature trails should be developed in association with education centres, parks and the larger campgrounds. In Wild River Parks and along major rivers such as the Bow and North Saskatchewan used by canoe and kayak enthusiasts simple riverside campgrounds should be established, but road access should not be established except at a few points.

Greater consideration should be given to the carrying capacity of an existing or proposed recreation site. The Society of American Foresters (Ford-Robertson 1971) define carrying capacity as used in recreation management as "the level and type(s) of recreational use that a natural or developed area can provide without deterioration of the quality of the recreational experience or the resource". Dooling (1969) stated that there is a pressing need for the development of recreational land capacity standards, or indicies of site quality. He goes on to quote a three phase outdoor recreation research proposal outlined in a publication of the U.S. National Academy of Science (1969) and develops possible approaches. Lesko (1973) has just developed a preliminary soil site index for use in Alberta Parks. There is also a need for experimental studies as to methods of recreation site restoration which are both economically and administratively feasible.

Environmental Education Centres

We feel there is a need for the establishment of day-use, weekend-use, and long term-use environmental education centres in the East Slopes and elsewhere in the Province to provide awareness, knowledge, appreciation and protection of our environment through education interpretive displays and programs. Many people need a hand to enjoy natural areas or man influenced landscapes in ways other than the ad-men suggest - i.e. wildlife, a clearcut in the forest and scenery can be appreciated for its own sake, not just as a back drop to a brand of liquor, shampoo, motorized vehicle, or whatever gadgetry. But this kind of endeavor (environmental education centre) must be carefully defined, for if it got off on the wrong foot it could be disastrous to the intent of the project. Some of the proposed centres, especially the day-use, should be located on major transportation routes and be associated with campgrounds where many families spend a lot of the hours in a day. The establishment of an outdoor education centre at Blue Lake near Entrance Provincial Park is to be commended. We would like to see the scope of this centre expanded to include greater emphasis on environmental education. Other centres with longer-term programs could be associated with existing Provincial Parks, such as Crimson Lake, Bow Valley, Bragg Creek, or associated with other educational facilities such as the University of Calgary Environmental Sciences Centre and the Kananaskis Forest Experiment Station, or the centre of the Lethbridge Community College in the West Castle.

Surface Mining

We have previously had the opportunity to make recommendations concerning the impact on the environment of surface mining. We would like to commend the ECA Report and Recommendations on this subject. We trust that the Government will follow closely the recommendations of the ECA concerning exploration and extraction of coal by surface mining and the reclamation of sites in the mountain and foothills area.

We would like to restate one of the recommendations found under Section 6.4.3 - "If sites cannot be developed in the areas of great sensitivity without permanent impairment of their values, then these should be entirely reserved against exploration and mining activities" (ECA 1972). We believe this recommendation is applicable for much of the prime wildlife and watershed zones above 5,000 feet in the area and should be strictly adhered to. We suggest that established coal extraction mines which have the potential to be viable should be allowed to continue under very strict regulations, but all exploration should be halted in prime watershed, wildlife and potential recreation areas until improved techniques have been developed and tested. Exploration companies should be made to reclaim existing scars and access roads as an immediate priority. A close watch should be kept on the surface mining legislation that is presently being formulated by the Senate and House of Representatives in the United States. Policies will soon be established among other things on the following: - "designation of areas suitable for surface mining; prohibitions of coal surface mining which would adversely affect the National Park System, National Forests, Wild and Scenic Rivers, publicly owned parks, slopes greater than twenty degrees (contour strip mining); written consent of the surface owner for exploration, mining and reclamation permits; public participation through notice and hearings at key points in the regulatory process; and citizen suits." (Conservation Report, June 29, 1973).

It is inevitable and desirable for the national economy that some new coal mining developments should be developed in the area during the next few decades. We would ask that these be only allowed under strict regulations and only after exhaustive studies and hearings. Wherever feasible they should be prohibited from areas with high water, wildlife and intensive recreation value. Reclamation performance bonds should be compulsory. The feasibility of underground mining of deposits should be promoted, as it is recognized that damage from this type of mining is greatly reduced. The locating of any associated railways and

roads must be very strictly controlled; we have the recent example of the railway in the Smoky River valley. Wherever possible it would be desirable to accommodate mine workers for potential mines in existing settlements, as the proliferation of settlements, especially when possibly of a temporary nature based on a single resource, over the entire area would further destroy the unspoilt beauty of the area.

We deplore the fact that the Government saw fit to approve an expansion application by McIntyre-Porcupine made to the Energy Resources Conservation Board to open another strip mine. We believe this was premature in the light of the purpose of the present hearings and the separate Grande Cache hearings. Also before the passing of the "Land Surface Conservation Act" and the implication of the recommendations of the ECA hearings on surface mining. We concur with the suggestion (Section 6.7.4) that public hearings be held under the ECA when new surface mining operations are proposed (ECA 1972), rather than the single purpose Energy Resources Conservation Board.

Oil and Gas Extraction

The impact of the oil and gas industry should be carefully evaluated. Exploration has resulted in the construction of temporary roads and seismic trails over much of the Eastern Slopes especially the Foothills area. In the process much of the forest resource has been wasted; in any one year as much as the annual cut by the forst industry in the Province. This is deplorable and a way should be found to enforce utilization of this resource and the reclaiming of these trails and roads. Further there has often been a duplication and excessive cutting of seismic lines in some areas which has effectively destroyed other resources. A system should be developed to enforce cooperative use of transportation corridors and lines and all exploration companies should be required to use them. As with coal exploration, it is desirable that oil and gas surface exploratory operations should be prohibited in prime wildlife and water shed zones, and only allowed under strict regulation and control in other zones.

Forest Industry

The forest extraction industries are compatible with most potential uses when adequate forest management is practiced, except for the preservation of wilderness areas. Mention was made earlier to prohibit clearcutting in buffer zones adjacent to naturally preserved areas, while management plans should give more consideration to aesthetic values in their cutting plans especially in areas visible from transportation routes, or viewing points. Selective cutting may be feasible in some buffer zones and the beneficial effect of opening up coniferous forests and increasing the available forest-edge habitat for wildlife in other zones has been briefly referred to earlier.

Conclusion

We are concerned as indicated earlier that the recommendation of these hearings will concentrate on planning for the recreational use and development of the remaining uncommitted 15% of the area of the Eastern Slopes. The resource industries have already staked their claims and been awarded with short and long-term committments, even since these hearings were called we are aware that leases have been given for non-renewable resources. Why was a monatorium on the approval of such developments or exploratory leases not enforced until after the recommendations resulting from these hearings had been presented to the Government. It appears that the Government is able to back two horses at the same time, and yet keep one at the starting gate. The one horse has been off and running a long time but does it really represent the values of the present and future Albertan? The alternatives provided in Chapter V of the Resources of the Foothills bulletin would seem to have little relation to reality. What is needed is the development of an integrated land use plan for the whole East Slopes taking into consideration the present use, short and long-term committments, as well as the desired or prime land use of each area or zone. Only then will

the implementation of a suitable land use plan maintain an environment fit and capable of physically and aesthetically supporting human fulfilment in this and future generations.

Thank you.

Literature Cited

Adamovich, L. 1971. Geometric design standards of forest roads: an aesthetic view. Paper presented at 8th Can. Roadside Development Conf., Vancouver, B. C. June 13p.

Anderson, E. W. and W. F. Currier. 1973. Evaluating zones of utilization. J. of Range Management, 26: 87-91.

Boothman, H. 1973. Maximum benefit through integration of services. Paper presented at Alberta Outdoor Education Conf. on "Parks and Programmes", Edmonton. May 5p.

Dooling, P. J. 1969. Soils, carrying capacity and resource-based recreation systems. Paper presented at 4th B. C. Soil Science Workshop, Abbotsford, B.C. 10p.

Environment Conservation Authority. 1972. The impact on the environment of surface mining in Alberta. Report and Recommendations. 99p.

Ford - Robertson, F. C. (Ed.). 1971. Terminology of forest science technology, practice and products. Soc. of Amer. Foresters, Washington, D.C. 349p.

Knapik, L. J. and A. G. Landals. 1972. Great Divide Trail: An ecological study of the proposed route Jasper National Park and vicinity. Environment Canada, Can. Wildlife Serv., Edmonton, 251p.

Lesko, G. L. 1973. A preliminary site capability rating system for campground use in Alberta. Environment Canada, Can. For. Serv., Northern For. Res. Centre, Edmonton. Info. Rept. NOR - X - 45. 16p.

United States National Academy of Sciences. 1969. A program for outdoor recreation research. Waskington, D.C., Publ. No. 1727.

United States National Wildlife Federation. 1973. "Conservation Report". Rept. No. 24. June 29. p. 318.

QUESTIONING BY THE AUTHORITY

MR. KINISKY:

Do you favour the proposal of the Alberta Wilderness Association to convert land subtracted from the White Goat Wilderness area into a wildland?

DR. POWELL:

Yes, we favour that. The consensus of our various clubs was that the area should be returned to full wilderness, but we would accept any protection.

MR. KINISKY:

Would you be in favour of using the wildland proposed by the Alberta Wilderness Association as buffer zones for the wilderness areas and the national and provincial parks?

DR. POWELL:

Providing protection for wildlife and water quality was included in those recommendations.

MR. KINISKY:

Why do you feel we should induce city dwellers to go to the wilderness?

DR. POWELL:

I'm not saying induce them to go to the wilderness. I will backtrack here. A study done in the city of Calgary showed that in any one year 84 per cent of the population never went out of the city more than once and over 50 per cent never went out at all. As a group, we feel we should be providing a park experience for those people who never go out of the city at all so they can have the environment interpreted to them. This is why we're saying let's have interpretive programs in a city park and then take them out a little further.

People are afraid of bears. Harry Boothman, Superintendent of Parks and Recreation in the city of Calgary, says that people don't want to go out of the city. For various reasons they don't like going to the outdoor toilets; they don't like getting in the forests because there might be forest fires. They feel that everything is against them. I think this is a step by step gradation. We would like to take people out into a natural environment and explain it to them.

MR. KINISKY:

You were talking about a land-use classification within parks or wilderness or wildland areas themselves.

DR. POWELL:

We would like to see an overall land-use plan for the whole of the eastern slopes developed by government. Then, within a recreational park there should be zones which are protected in a natural state so that people visiting that park can also see the natural environment.

MR. KINISKY:

So there would be highly restricted areas within the park itself and other places with easy access.

DR. POWELL:

Yes.

MR. DOWLING:

You mentioned as a requirement a much improved inventory of archaeological and historical sites. Do you know of any notable sites in the Smoky River basin that might possibly be endangered in the immediate future?

DR. POWELL:

I'm afraid I don't personally. This is my first experience with the Smoky River basin. I came up from Hinton this morning.

1061-1

# TORRENS RIVER RECREATION RESORT

A Brief Presented to the

ENVIRONMENT CONSERVATION AUTHORITY

GOVERNMENT OF THE PROVINCE OF ALBERTA

for

APPROVAL IN PRINCIPLE

Prepared By

Torrens River Recreation Company

April 16, 1973

Presented By: D.H. O'Donnell

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## 1. INTRODUCTION

It is the purpose of this brief to set out the main features of a multi-purpose recreational facility. The facility proposed will encompass winter activities such as snowshoeing, skating, cross-country and downhill skiing, and summer activities such as nature education, camping, hiking, horseback riding, and fishing.

Due to the isolation of the proposed site, adequate living accommodations, both passive and active, should be provided within our proposal. The primary access to the site in the winter is intended to be an existing abandoned airstrip that will be upgraded. The use of the airstrip and the dependency of the proposal on air access to the site will provide a unique development and a minimal impact of transportation disturbance on the environment.

The prime directive in the preparation of this proposal is the integration of man's recreational requirements and the natural elements existing at the site. We have prepared a team of concerned environmental scientists, designers, and engineers that will produce a coordinated effort to efficiently use the area producing as minimal an impact as possible. Any effort to expose the public to a natural site will only be partially successful because nature and man's structures are inherently incompatible. With this in mind, we can attempt to limit the conflicts and produce a project that harmonizes with the existing site as much as possible.

When considering the relative values of natural features in the area, Kakwa Falls must be regarded as a unique feature. There seems to be a great deal of value in providing a camping and recreation facility "near" the falls, yet sufficiently far enough away to protect the falls from the devastation of masses of people that one envisages as part of the park concept. Initially we feel the proposed site is properly located so as to limit the number of people that make the effort to reach the falls. The distance will also naturally restrict the amount of excess litter a traveller carries to the falls.

1. INTRODUCTION (continued)

A successful proposal, from the public and from the development point of view, will have to achieve the following objectives:

1. Maximum preservation of the existing wildlife, vegetation and watersheds. It will be in the interest of the developer to achieve this preservation, as it is the nature of the area that will attract facility users.

2. Harmonious integration of land uses and man's structures.

3. Provide sufficient and necessary opportunity for public contact with a wilderness area.

The objectives as set out can be most efficiently achieved by employing concerned environmental designers who will guide the project to insure proper respect for the fragile environment in which we intend to work.

SITE LOCATION. The site is located on the following maps. It is 8 to 10 miles from Kakwa Falls, the highest falls in Alberta, and located near the base of Mt. Robson, the highest peak in the Canadian Rockies; Miscellaneous Lease 965, located on Pt. N.W. 14 and S.W. 23, twp. 61-13-W6. The initial lease contains ten acres and the use of the adjacent areas leased by Proctor and Gamble.

APPROACHES. The main access to our proposed site will be by air transportation.

Road access from Grande Prairie is an all weather gravel road, 75 miles long. Possible upgrading will need study. The road access from Grande Cache will need further study as to the advantages in relation to cost. The site is about 35 miles from Grande Cache but is not

1. INTRODUCTION (continued)

APPROACHES. (continued)
presently accessible from a road. Initially it would appear desirable to provide this access.

Bicycle access to the site should be evaluated from Grande Cache, and these trails should be provided separate from the roads. The encouragement of access by bicycle in the summer could create a desirable reduction in auto traffic. Bicycle trails might also be considered as a means of transportation from the site to Kakwa Falls.

SITE CHARACTERISTICS. The land at present appears to be undisturbed natural growth with ravines and mountains. Small lakes, tributary rivers, Torrens River and Kakwa River are all stocked with fish providing stream fishing and canoe fishing.

The soil is gray wooded soil with a short growing season which indicates the plant life is probably of a fragile nature. Vegetation is mixed deciduous and evergreen woodland.

The character of the site is picturesque natural rolling land with no apparent external influences of man. The feeling of seclusion is a quality that should be retained as much as possible by the proposal.

1. Topography

A rise of 1,700 feet along the Torrens Ridge for proposed hiking trails and ski runs is a natural feature of the

## 1. INTRODUCTION (continued)

### SITE CHARACTERISTICS. (continued)

1. Topography (continued)
   local topography. The lower slopes appear to offer plateaus that will be useful for both the hiking and skiing activities. The ridge is 2 1/2 miles from the site area.

2. Mt. Robson

   The site affords a picturesque view of Mt. Robson that is open, unobstructed, and framed by adjacent mountains. It is one of the best views possible of Mt. Robson.

3. Kakwa Falls

   The site is located about 8 miles from the highest falls in Alberta. The elevation rise is 900 feet in the 8 miles and can provide an interesting walking trail to the falls.

## 11. DEVELOPMENT PROPOSAL

Briefly, the scope of the proposal covers multi-use recreational opportunities in an undisturbed natural area. Provisions will be considered for cross-country and down-hill skiing, showshoeing, hiking, horseback riding, camping, fishing, and a nature interpretation centre. The elements that are required to support these activities and the proposed phasing are outlined in the "PROGRAM ELEMENTS" section of this proposal.

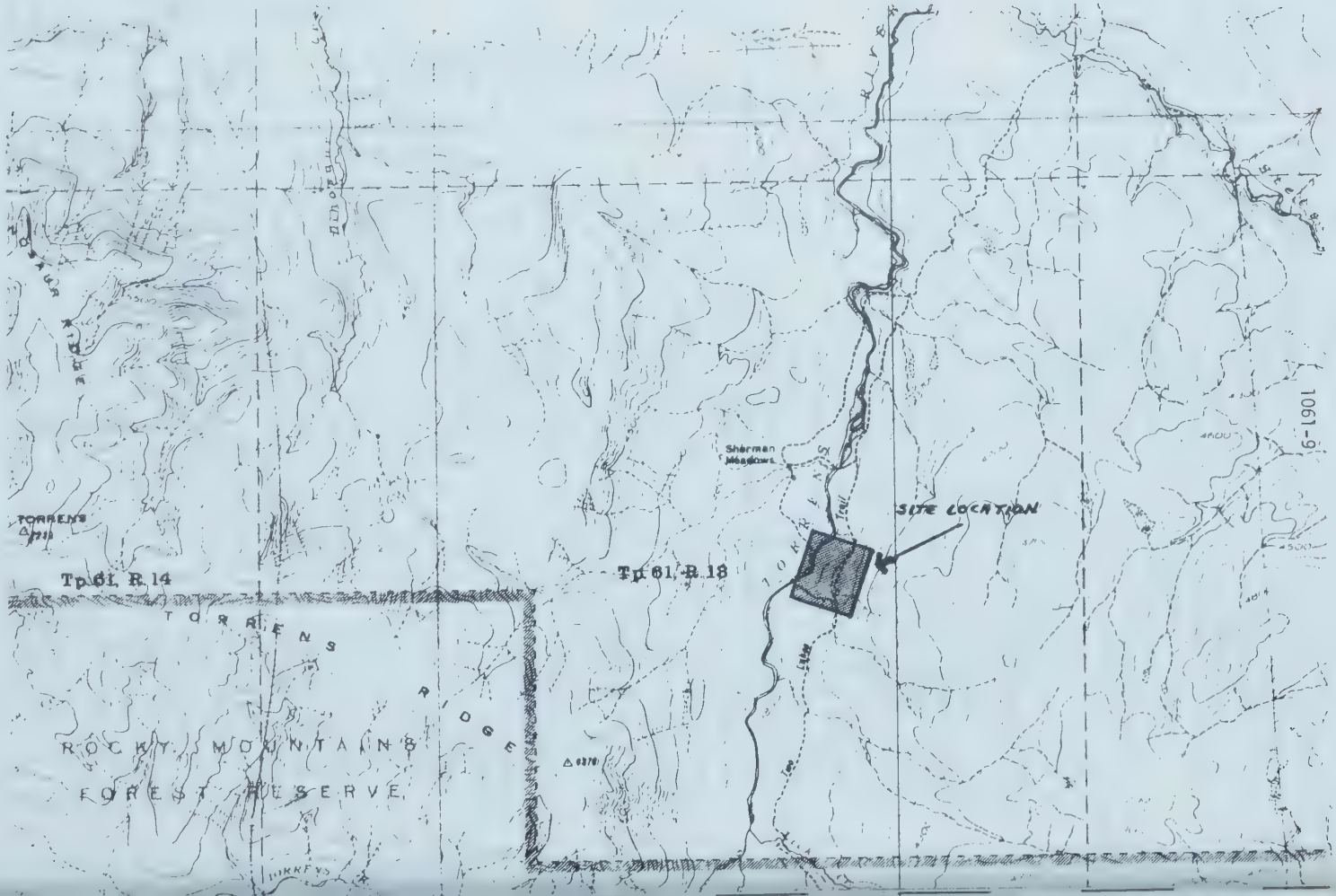
11. DEVELOPMENT PROPOSAL (continued)

Supportive facilities of our proposal such as kitchens, cafeterias, and lounges could be used by the North-West Canadian Youth Hostels Association. This group is currently proposing the development of a hostel in the Kakwa Falls area. If they could make use of these facilities, the cost of their proposed hostel could be considerably reduced. The developers are most receptive to including the Canadian Youth Hostels Association in the proposal.

An additional advantage of including the CYHA is that the development concept will have direct input from the "youth" of Canada who should become involved with planning the future of "untouched" recreational areas such as this. The procedures of design and development priorities could be of value in setting a precedent for many other areas with future recreational potential.

PROPOSED SITE
SCALE = 1/16" = 1'-0"
19TH BASE LINE
18TH BASE LINE
17TH BASE LINE
16TH BASE LINE
15TH BASE LINE
GRANDE PRAIRIE
HQ
DEBOLT
PUSKWASKAU
FISH CREEK
VALLEYVIEW
GROVEDALE
SOUTH WAPITI
SWEATHOUSE
ECONOMY CREEK
BALD MTN.
PINTO
SNUFF MTN
NOSE MTN.
KAKWA
TORRENS
SMOKY
SIMONETTE
KAKWA FALLS
COPTON
BERLAND
HAMELL
HUCKLEBERRY
GRANDE CACHE
CABIN CREEK
ADAMS CREEK
WILLMORE
KVASS
WILDERNESS
MAYBERNE
INTERSECTION MTN
MT. SFRAGGE
13 12 11 10 9 8 7 6 5 4 2 1 27 26 25 24 23 22 21 19 18 17
73 72 71 70 69 68 66 65 64 62 61 59 58 56 55 54

1061-8


SITE LOCATION
Sherman Meadows
TORRENS
Tp. 61, R. 14
Tp. 61, R. 18
TORRENS RIDGE
ROCKY MOUNTAINS FOREST RESERVE
TORREYS

6-1901

## 111. SERVICING

The first observation in regard to providing the necessary services to an isolated site is that the service systems, while being interdependent are totally independent of any other systems, with the exception of energy supply.

In keeping with one of the prime objectives of this proposal, that of conservation of the area's plant and animal natural resources, the proposed systems may entail a larger capital expense than conventional systems. The areas of service of particular concern in this regard are:

1. Refuse disposal,

2. Sanitary sewage disposal,

3. Control of energy source exhaust.

The following is a brief description of the proposed service systems.

WATER SYSTEM. The water supply shall be from the Torrens River and shall be treated to the satisfaction of the local Board of Health as well as conforming to the "Provincial Board of Health Regulations Respecting Water Supplies 346/71 (Division 10)".

REFUSE DISPOSAL. The refuse disposal system to be used is that recommended by the Provincial Board of Health Regulations Respecting the Control of Refuse Disposal Systems 273/71 (Division 12).

The system is generally referred to as a modified landfill system. The system consists of an open pit in which the refuse is placed and covered over peridically with back-fill. The location of the landfill site has yet to be determined,

## 111. SERVICING (continued)

REFUSE DISPOSAL (continued)
however, it will be a minimum of one-half mile from the river or any other proposed buildings.

SANITARY SEWAGE DISPOSAL SYSTEM. The sewage disposal system to be used will probably be of the septic tank - sub-surface disposal field type depending upon further analysis of soil conditions. The system shall be regulated by the Department of Manpower and Labour's publication titled "Private Sewage Disposal" Fifth Edition. The final system will be determined by what is most ecologically viable.

ELECTRICAL POWER. Electrical power shall be provided by an on-site generator with standby generator or emergency power source incorporated.

COMMUNICATION SYSTEMS. Alberta Government Telephones shall install a 25 watt general mobile communication system with a highly sensitive antenna.

## 1V. PROGRAM ELEMENTS

PHASE 1 SUMMER FACILITIES. The following elements shall form the program for summer activities developed in phase 1.

1. Hiking trails will be developed to provide access to:

    a. Torrens Ridge

    b. Surrounding wilderness areas and lakes.

IV. PROGRAM ELEMENTS (continued)

PHASE I SUMMER FACILITIES (continued)

1. continued

   c. Kakwa Falls

   d. Two Lakes

The lengths of these trails should differ so as to allow various age groups a variety of choices in hiking distances with special concern for the aged and handicapped.

   i. Self-guiding trails to offer the visitor an opportunity to experience the wilderness for himself. Information and orientation signs, as well as smaller markers to indicate distances will be provided.

   ii. Nature study trails where plants and other natural features will be labelled with their common and scientific names, as well as distinguishing characteristics.

   iii. Special use trails for the handicapped to allow these individuals and groups the opportunity to explore or experience a wilderness area. Special facilities for wheelchairs, rope lines to guide blind visitors, and interpretive braille labels will be provided.

2. Bicycle (motorless) trails, separate from access roads and hiking trails should be developed to provide access:

   a. from Grande Cache to the Torrens River area

IV. PROGRAM ELEMENTS (continued)

PHASE I SUMMER FACILITIES (continued)

2.

b. to Kakwa Falls

c. along the Torrens River (North and South) into wilderness areas where the topography allows for such access.

3. Horseback riding trails should be wide enough for two horses.

The use of horseback riding trails will be rotated in order to allow for regeneration of vegetation.

4. Camping facilities will be developed to accommodate:

a. tents

b. tent camper trailers

There should be a variety of campsites and camp densities, with the main camping area providing the necessary washroom, shower, water, and electrical facilities, and a general campers' supply outlet. It appears that there could be an advantage in providing additional tent campsites located:

a. at selective sites along the Torrens River

b. near Kakwa Falls

c. at Two Lakes

IV. PROGRAM ELEMENTS (continued)

PHASE I SUMMER FACILITIES (continued)

4. continued

Campground sites:

| | |
|---|---|
| Phase I | 75 total |
| Phase II | 150 total |
| Phase III | 300 total |

5. A nature interpretive and information centre will be provided for in the focal area of the main camp site with facilities for:

   a. nature talks

   b. slide shows

   c. movies

   and designed so as to allow for maximum audience participation.

6. An indoor swimming pool, 25 meters by 15 meters, in conjunction with saunas and showers will be developed adjacent to the lodge facilities.

7. Fishing. Lakes and streams are well stocked and provide an excellent recreational opportunity.

8. Canoeing on Two 'Lakes'.

IV. PROGRAM ELEMENTS (continued)

PHASE II SUMMER FACILITIES. The following elements shall form the program for summer facilities developed in Phase II.

1. Additional and further development of various trail systems.

2. Campsite facilities - phase II: 150 sites

3. Extension of walking trails and possible bicycle (motorless) trails to Kakwa Falls.

4. Development of 50 units for the Canadian Youth Hostels Association.

5. Upgrading of maintenance operations.

PHASE I WINTER FACILITIES. The following elements shall form the program for winter activities developed in Phase I.

1. Cross-Country Skiing. Many of the existing summer hiking trails, as well as other designated areas, can be effectively utilized during winter months.

2. Downhill Skiing. The intent is to develop a recreational area that will meet the demands of the beginner, the intermediate and expert skier.

3. Snowshoeing. Existing summer hiking trails, self-guide trails, nature study trails, as well as other designated areas, can be effectively utilized during the winter months.

4. A skating rink will be provided for near the lodge facilities.

## V. STRUCTURAL ENVIRONMENT

1. Accommodation Facilities

   a. Lodge

      - restaurant for 125 people
      - cafeteria snack bar related to ski lodge
      - coffee shop for 75 people
      - tavern for 250 people
      - banquet room about 80' x 40'
      - kitchen, coolers, and storage

      ancilliary facilities such as toilets, chair storage, staff lockers, living facilities, maintenance buildings.

   b. Pool with sauna and showers

   c. Over-night accommodations for:

      Phase I - 75 units
      Phase II - 75 units additional
      Phase III - 100 units additional

      Future expansion provision for all facilities.

2. Recreational Facilities

   a. Ski equipment and camping sales

   b. Ski patrol facilities

      - first aid
      - mobile first aid station

3. Ski lifts. The lengths and number of lifts to be determined after necessary feasibility studies.

## V. STRUCTURAL ENVIRONMENT (continued)

4. Stables and corrals will be provided for riding horses.

5. Quarter Horse Reserve. A quarter horse reserve is being proposed for a portion of the area. This portion of the development will be located so as to isolate it from the day to day activities of the lodge.

6. Airstrip for winter and summer use with the necessary maintenance facilities.

## VI. ANALYSIS OF MARKET DEMAND FOR YEAR-ROUND USE

It has often been noted that this province does not have enough controlled access to the mountainous areas to the West. This proposed development is to be designed to permit this access but also to protect the elements that draw people. It must be noted here that the prime feature of the development will be the fact that the primary access will be by aircraft. Drive-in clientelle, by way of Hinton, Grande Cache, Grande Prairie (by way of the forestry road) is considered to be secondary.

The following populations can be used to justify immediate market area for the proposed site*.

| | |
|---|---|
| Edmonton | 540,641 |
| Edson | 4,060 |
| Hinton | 4,690 |
| Grande Cache | 3,417 |
| Grande Prairie | 13,444 |
| Red Deer | 27,571 |
| C.D. #11 | 980,995 |
| C.D. #14 | 43,110 |
| C.D. #15 | 168,658 |

Total estimated market population 1,696,272

*"Populations of Alberta Communities and Municipal Districts", Department of Municipal Affairs, Government of Alberta.

## VI. ANALYSIS OF MARKET DEMAND FOR YEAR-ROUND USE (continued)

In addition, when the uses and the uniqueness of the site become known, the rest of the province, Eastern Canada, and Western Canada will become potential areas from which to draw clientelle.

ECOLOGICAL RESTRICTIONS.
It is proposed that the site be used year round with the exclusion of March and April. This period must be restricted to the public use because of the adverse affects which may result from use during the spring thaw and run-off season. This time will allow the site to dry out thoroughly and for sensitive vegetation to establish itself.

FALL AND WINTER USE Fall and winter use will be restricted to five months, October to February. From the meteorological data, snow is plentiful during these months. The site will tend to take the pressure off Jasper, as far as skiing is concerned, for those who are willing to take the trip through Grande Cache. It is estimated that approximately 4.1% of Canadians ski*. Therefore, using this figure and applying it to the potential settlement area populations previously mentioned, the potential number of skiers for the proposed site is as follows:

| | |
|---|---|
| Edmonton | 18,476 |
| Edson | 166 |
| Hinton | 192 |
| Grande Cache | 140 |
| Grande Prairie | 551 |
| Red Deer | 1,130 |
| C.D. #11 | 40,220 |
| C.D. #14 | 1,768 |
| C.D. #15 | 6,915 |
| Total | 69,763 |

*P. S. Ross & Partners, Economic Impact of Skiing in Canada, 1971

VI. ANALYSIS OF MARKET DEMAND FOR YEAR-ROUND USE (continued)

FALL AND WINTER USE (continued)
This does not include out of province skiers (primarily from Saskatchewan) which may account for an additional 1% (± 700 persons).

By 1999, the population in the areas mentioned is expected to increase by an average of 2.26%*. Therefore, if the skiing portion of the population remains the same, past trends indicate that it will probably double by 1999, the potential population market for 1999 will be a minimum of approximately 1,222,400**.

School Boards throughout the province will be invited to use the site at a reduced rate for winter camping, hiking, and outdoor education.

* Red Deer Regional Planning Commission, "An Analysis of Alberta Resources", 1972

** Ibid

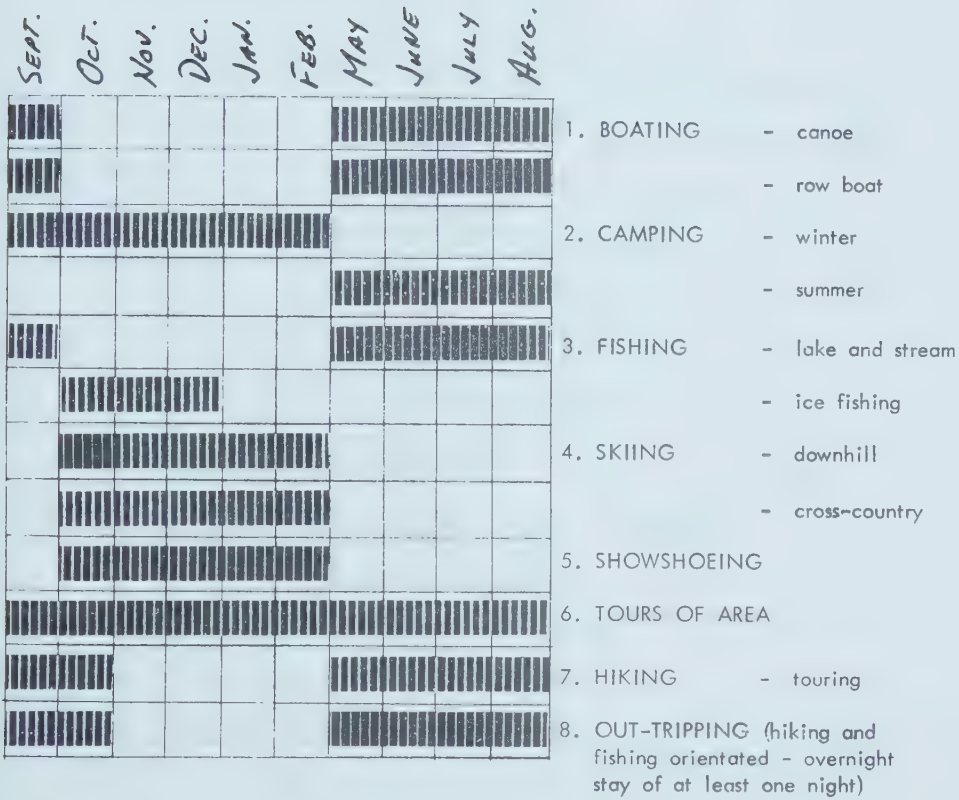
SPRING AND SUMMER USE. Spring and summer use will be restricted to five months, May to September. This use fits in with the Alberta government's expressed need for developing camping sites. As a result of the airstrip, special excursions into the Northern part of Alberta and B.C., in addition to the Southern part of the Northwest Territories and Yukon, will be possible.

PROPOSED MULTIPLE-USE COORDINATION
It is intended to have the facility open ten months of the year with multiple-use occurring more as an overlap of seasons rather than of

VI. ANALYSIS OF MARKET DEMAND FOR YEAR-ROUND USE (continued)

PROPOSED MULTIPLE-USE COORDINATION

activities in the same season. A yearly calender of proposed activities is presented as an example of this planning.



## VI. ANALYSIS OF MARKET DEMAND FOR YEAR-ROUND USE (continued)

ECOLOGICAL AND CONSERVATION CONSIDERATIONS. Conservation and sensitivity to the environment will be the basis upon which seasonal programs will be iniated, developed and operated. Users will be continually reminded by an on-site promotional advertising campaign that they are there to appreciate the surroundings not to deteriorate them.

## VII. ESTIMATED PHASE I CAPITAL COSTS

TRAIL SYSTEMS

1. Hiking Trails
   Nature Trails
   Self-guiding Trails

2. Horseback Trails

3. Bicycle Trails

MAIN CAMPSITE

1. Water, electrical, washhouses, (showers, toilets) roads, (asphalt surfacing).

NATURE AND INFORMATION CENTRE

LODGE FACILITIES

1. Accommodation - 75 units

2. Restaurant for 125 people

3. Cafeteria, Snack Bar for 150 people

4. Coffee Shop for 75 people

## VII. ESTIMATED PHASE I CAPITAL COSTS

LODGE FACILITIES (continued)

5. Tavern for 250 people

6. Banquet Rooms

7. Kitchens

STAFF QUARTERS

1. Managerial Staff

2. Supportive Staff - 20 to 30 people

MAINTENANCE BUILDINGS AND MACHINERY

SKI AND CAMPING SUPPLIES OUTLET

SKI PATROL FACILITIES

SKI LIFTS - PHASE I

STABLES AND CORRALS

AIRSTRIP UPGRADING

SERVICES

| | |
|---|---|
| Total | $2,200,000.00 |

## VIII. CONSULTANTS

The following firms and consultants will be used to design the facilities and to collect the base data to determine the design.

The Prime Consultants are Wayne Scott - Environmental Design, a firm of architects and landscape architects. Supportive consultants are Renewable Resources Ltd. for environmental research; P.E./Recreation Research and Planning Ltd. for recreation advisor; Suvan, Fettig and Associates Ltd. for municipal engineering consultants; and Lance White Development Consultants for feasibility research.

# WAYNE SCOTT - ENVIRONMENTAL DESIGN

## WAYNE SCOTT

Landscape Architect
Architect
Environmentalist

| | |
|---|---|
| EDUCATION | Masters Programme<br>New York State School of Landscape Architecture - 1967'<br><br>Bachelor of Architecture<br>Syracuse University<br>School of Architecture - 1966 |
| PROFESSIONAL MEMBERSHIP | The Professional Institute ...<br>Alberta Recreation and Parks Association<br>National and Provincial Parks Association<br>Canadian Youth Hostels Association<br>Specification Writers Association<br>Alberta Association of Architects<br>Member of Royal Architectural Institute of Canada |
| SPECIAL INTERESTS | Preservation of existing landscape and its blending into the development of man's buildings.<br>Photography |
| EXPERIENCE | Principal of Wayne Scott - Environmental Design since July, 1970.<br><br>Presently working on various landscape and architectural projects in Central, Northern Alberta and the Northwest Territories. The major landscape projects undertaken by this firm total in excess of $6 million. |

# WAYNE SCOTT - ENVIRONMENTAL DESIGN

## MICKI RENEHAN

Environmental Co-ordinator
Landscape Designer

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| EDUCATION | History Major at Syracuse University, 1962<br>Computer Operations Training, IBM, 1968-69<br>Certificate in Ecology, N.A.I.T., 1971<br>Certificate in The Flora of Alberta, N.A.I.T., 1972<br>National School of Conservation, 1973 |

MEMBERSHIPS and COMMITTEES

| | |
|---|---|
| The Wilderness Society | Nature Conservancy of Canada |
| The Audubon Society | Ottawa Field Naturalists Club |
| Ducks Unlimited | National Wildlife Federation |
| Sierra Club | Edmonton Natural History Club |
| Canadian Field Naturalist | Canadian Wildlife Federation |
| Soil Conservation Society | Ecological Society of America |
| Canadian Nature Federation | Alberta Recreation & Parks Assoc. |
| Federation of Alberta Naturalists | Canadian Recreation & Parks Assoc. |
| Canadian Youth Hostels Assoc. | Smithsonian Institute |

National & Provincial Parks Association of Canada
National Parks & Conservation Association
Citizens Advisory Committee on Outdoor Education
for the Department of Culture, Youth & Recreation,
Province of Alberta

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|---|---|
| SPECIAL INTERESTS | Environmental Team Projects, Cross-Country Skiing, Conservation, Photography, Painting, Hiking Canoeing, Saint Bernard Breeding |
| EXPERIENCE | Wayne Scott - Environmental Design<br>Environmental Co-ordinator since 1970<br><br>L.G.L. Ltd.<br>Environmental Research Associates<br>Western Regional Manager, 1971 - 73<br><br>Telecommunications - Computer Industries<br>Technician - Librarian, 1961 - 69 |

WAYNE SCOTT - ENVIRONMENTAL DESIGN

JOEY OCHMAN

Design Consultant

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| EDUCATION | Bachelor of Arts<br>University of Alberta, 1969<br><br>Masters of Architecture Programme<br>University of Manitoba, 1970 |
| SPECIAL INTERESTS | Sculpture<br>Photography |
| EXPERIENCE | Wayne Scott - Environmental Design<br>Edmonton, Alberta, since May, 1972<br><br>Poole Construction<br>Edmonton, Alberta<br><br>Stanley Associates Engineering Ltd.<br>Edmonton, Alberta |

WAYNE SCOTT - ENVIRONMENTAL DESIGN

GARRY ONYSKO

Landscape Architect

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| EDUCATION | Bachelor of Environmental Studies<br>University of Manitoba<br>Faculty of Architecture - 1971<br><br>Masters of Landscape Architecture Programme<br>University of Manitoba<br>Department of Landscape Architecture<br>1973 |
| SPECIAL INTERESTS | Geology, Fossil Collection<br>Biological - Ecological Study and Conservation<br>Photography |
| EXPERIENCE | Wayne Scott - Environmental Design<br>Edmonton, Alberta, since April, 1973<br><br>University of Manitoba<br>Landscape Research Group<br><br>Manitoba Hydro<br>Environmental Controls<br>Winnipeg, Manitoba |

P.E./RECREATION RESEARCH & PLANNING LTD.

DENNIS HOWARD O'DONNELL

Recreation and Facility Planner

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|---|---|
| EDUCATION | Master of Science in Recreation Administration, Research and Planning, University of Oregon, 1970<br><br>Ph.D. Program at the University of Waterloo in Recreation Regional Planning and Resource Development<br><br>Bachelor of Physical Education, University of Alberta, 1963 |
| PROFESSIONAL MEMBERSHIPS | National Recreation and Parks Association<br>Recreation Institute of Canada<br>Canadian Parks and Recreation Association<br>The Professional Institute, Alberta Recreation Parks Association |
| EXPERIENCE | President, Senior Planner and Founder of P.E./Recreation Research and Planning Ltd.<br><br>Planning Consultant, Area and Facility Planning, Recreation Branch, Department of Culture, Youth and Recreation, Government of Alberta<br><br>Chairman, Facilities Committee, H & P.E. Specialists Council, Alberta Teachers' Association<br><br>Member of Standing Committee of Alberta Teachers' Association, Health and Physical Education Specialists' Council, to study standardization and specifications for Alberta physical education facilities. |

# RENEWABLE RESOURCES CONSULTING SERVICES LTD.

Renewable Resources Consulting Services Ltd. provides services in diverse areas of natural resource management and ecological consulting. These include wildlife management, habitat evaluation, land use inventory, forestry, fisheries and water quality assessment. Impact surveys and subsequent recommendations for minimizing or avoiding environmental degradation have been the major activities. Services have been provided to industrial clients, federal and provincial governments, and private individuals.

Following is a list of projects undertaken by Renewable Resources Consulting Services Ltd. which are pertinent to the subject of this proposal:

- Study of outdoor recreation legislation and needs in Canada. A preliminary study for the Canadian Council of Resource Ministers.

- Study of the potential for recreational hunting and waterfowl development on the lower mainland of British Columbia. This study was co-sponsored by the Canadian Wildlife Service and the British Columbia Fish and Wildlife Branch.

- Comprehensive studies of ungulates including caribou, Dall sheep, and moose are being carried out for Canadian Arctic Gas Study Ltd. in connection with a proposed gas pipeline from Prudhoe Bay, Alaska to Emerson, Manitoba. This study entails assessment of potential impact to these animals and research into methods for minimizing any anticipated adverse effects.

- Ecological impact studies for a proposed dam and diversion development in Alberta. Mammals, birds, fishes, and their habitat were assessed to determine ramifications of a proposed dam on the Pembina River. This study was carried out for the Alberta Water Resources Division of the Department of Agriculture.

- Assessment of current timber harvesting practices in western Alberta. This report, prepared for the Alberta Fish and Game Association, included recommendations for improvement of many aspects of forestry practices and administration designed to protect the environment and adhere to the principles of multiple use planning.

- Mackenzie Highway Overview Study. Development and analysis of ecological information pertaining to the highway construction and maintenance.

# LANCE WHITE DEVELOPMENT CONSULTANTS

## LANCE D. WHITE

Development Consultant
Project Manager

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|---|---|
| EDUCATION | Bachelor of Science in Civil Engineering<br>University of Alberta, 1971 |
| MEMBERSHIPS | Association of Professional Engineers,<br>Geologists and Geophysicists of Alberta |
| SPECIAL INTERESTS | Politics<br>Travel |
| EXPERIENCE | Cherry Engineering Ltd.<br>Municipal and Structural Consultants<br>Edmonton, Alberta<br><br>Fred H. Ross and Associates Ltd.<br>Contractors - High Arctic<br>Cambridge Bay, N.W.T.<br><br>Elsro Asphalt Ltd.<br>Manufacturers<br>Edmonton, Alberta<br><br>Pro-Man Projects International Ltd.<br>Project Managers and Contractors<br>Edmonton, Alberta |

# SUVAN, FETTIG & ASSOCIATES LTD.

Municipal Engineering Consultants

| | | |
|---|---|---|
| PRINCIPALS: | Anton J. Fettig, P. Eng.: | Bachelor of Science<br>University of Alberta<br>Civil Engineering - 1952 |
| | Norman Suvan<br>Alberta Land Surveyor : | Alberta Land Surveyor |
| EXPERIENCE: | Major developments consist of numerous country living projects involving total development concepts where sewage disposal and water supply systems were evaluated and designed. | |

QUESTIONING BY THE AUTHORITY

MR. KINISKY:

What evidence have you that there will be sufficient snow for downhill skiing?

MR. O'DONNELL:

We have analysed the maps prepared by the Department of Lands and Forests which indicate this is an area of maximum snowfall. I can't give you the exact number of inches. With the approval of the commission we will go ahead and further analyze the snowfall on that site.

MR. KINISKY:

I asked the question because as a meteorologist I happen to know there is no snow data for the area. I'm also wondering if you appreciate the fact that determining your snow cover is not just a matter of precipitation but also a matter of measuring snow courses over a long period of time.

MR. O'DONNELL:

We're working on provincial data. If we were not held up by this particular land freeze, we would have determined whether the snowfall is adequate by now.

MR. KINISKY:

In one year you can determine this?

MR. O'DONNELL:

I can't answer the question directly. I will have to go to the people who can provide us with this information. That's where we are now. Provincial information seems to indicate the snowfall is there. Whether you agree or disagree, we'll have to prove it later with further study.

MR. KINISKY:

The Kakwa Falls proposal has extremely limited access. Are you in general agreement with the proposal?

MR. O'DONNELL:

Yes, we are. We also see Kakwa Falls as a wilderness area. We're about 18 miles from there. With two or three ridges we'd have to go over, the ground travel to that particular site is quite rough. We see our service radius as no more than 15 or 20 miles from the core site, so we're not infringing on that area at all, although it may be a unique hiking trip.

MR. KINISKY:

When was the last time you were in there?

MR. O'DONNELL:

It was about six weeks ago.

MR. KINISKY:

Six weeks ago we looked at the site. I was rather surprised at the quality of the road, at least along the airstrip.

MR. O'DONNELL:

They've really kept up that road because of the Two Lakes traffic coming down from Grande Prairie. However, the access from Grande Cache is very limited now. When I was talking to people from the Chamber of Commerce and town council, one fellow said it is completely washed out as a result of the flooding last year at Smoky River. So we don't have any access right now from Grande Cache.

MR. KINISKY:

Are you familiar with the new road proposal from Grande Cache to Grande Prairie?

MR. O'DONNELL:

Yes.

MR. KINISKY:

Approximately how far would that road be from your proposed site?

MR. O'DONNELL:

It would depend on which alternative was taken.

MR. KINISKY:

I think it's Route No. 3, the more westerly one.

MR. O'DONNELL:

I'm just familiar with the alternatives. I haven't really measured the exact distances for No. 3.

MR. KINISKY:

Would it be 20 or 25 miles?

MR. O'DONNELL:

I can't say.

MR. KINISKY:

How much land would you need? This is the total requirement of land outside of the original site.

MR. O'DONNELL:

We're looking at between 5 and 10 acres for concentrated development on the original site. The inside core of trails close to the site would have no more than a 5 to 7 mile radius. Tripping out or maximum movement from the site would involve not more than 15 to 20 miles.

MR. KINISKY:

How much access will be allowed to the public who are not direct clients of yours?

MR. O'DONNELL:

We hope because of the kind of development and the program we're offering everyone visiting the site would be a potential client. However, this is a matter that we haven't considered yet.

MR. KINISKY:

What are your thoughts concerning recreation vehicles, trail bikes, skidoos and such equipment?

MR. O'DONNELL:

We do not want them at all, either on the site or in the area.

MR. KINISKY:

You were saying that you want to use the Kakwa River for your water supply.

MR. O'DONNELL:

No, I did not say that. I said this requires further study. We may have a stream or a well in the area that we can draw on.

MR. KINISKY:

I asked the question because there is such a tremendous difference in flow rates between winter and summer. It also relates to your sewage disposal.

What about the conflicts that may exist? For example, you've suggested that a timber lease currently being used will pull out of there soon...

MR. O'DONNELL:

That was presented by someone else.

MR. KINISKY:

...and I noticed they have been doing some clearcuts in there and have left some alternative strips which haven't been cut. I presume that sometime after the regeneration of these first cuts they'll be starting the next operation. What effect will that have on your proposal?

MR. O'DONNELL:

That site is only about three and one-half to five miles away from us and would have considerable effect on the kinds of programs we're offering, hiking and moving through the area for example. If we're given permission to develop the site, I would hope to have some authority to discourage that kind of development.

However, this could become one of the hiking trails. On one side is reforestation vegetation coming back - not many urban people are aware of the kinds of things that happen - and on the other side we have the cutting of prime lumber in logging operations.

MR. KINISKY:

Have you had any discussions with the current lease holders as to what their future plans may be?

MR. O'DONNELL:

No, we haven't.

MR. KINISKY:

Are there any other conflicts? For example, is there coal in the area that may give you problems later on?

MR. O'DONNELL:

From analysis of provincial data, there doesn't seem to be any major coal seam in that particular area, although Torrens Ridge may hold some. But I am not certain.

MR. KINISKY:

How about oil and gas leases?

MR. O'DONNELL:

Apparently from the Peace River Planning Commission declaration this morning, the capacity deteriorates as it moves into that area.

MR. KINISKY:

You don't know whether you'll run horse trails yourself or lease that out, but there is always the problem of feeding the animals. What sort of plan for that have you in mind?

MR. O'DONNELL:

I'd probably lease them out so they can handle the feeding themselves. We'd like to have the animals on hand for local sightseeing and we'd simply bring in a person who knows the ins and outs of this kind of development and take his recommendations.

MR. KINISKY:

In essence, hauling in the feed.

MR. O'DONNELL:

One technique is to use the meadows in the immediate vicinity. While driving up here you probably saw a lot of horses lose in the area. After the season is over the outfitters turn the horses loose, let them go for most of the summer and recapture them for use in the fall.

MR. KINISKY:

You very wisely outlined a preliminary environmental impact study with continuing study during the course of construction. Would you also continue the study after you've had people there over a period of years to see if there is degradation of any kind?

MR. O'DONNELL:

Yes, we would. This is a unique opportunity to contribute to the kind of research that relates to site capacity, the use of different methods to maintain trails, rotation systems and this sort of thing. I see it as a unique pilot project on particular aspects of this planning.

MR. KINISKY:

Some of the trails you develop will be within the vicinity and others will probably be some distance from the central location. If you're going into a trail rotation scheme you will require some control over the use of those trails. When you take the trail out you don't want anybody on it so this will be extensive control of public access.

MR. O'DONNELL:

We would like to have everyone start from the lodge or the main development area. However, it's pretty hard to control people coming in from outside. It's like a golf course in a residential area. You get the fence up but it's pretty hard to stop that guy starting on the third hole at 7 o'clock in the morning.

MR. DOWLING:

How many visitors would you accomodate at a single time?

MR. O'DONNELL:

This would depend on the time of the year. Page 13 outlines the first phase of summer development of 75 campsite facilities and I think that's the only one we can look at now. The campsite could be divided for both trailers and tents.

On page 15 we have a lodge that would have a restaurant seating approximately 125 people and a cafeteria for 75. These are cumulative numbers. We are looking at people using it at a particular time; a tavern for approximately 250 people and overnight accommodations for 75 people. I would estimate, with tenting and accommodation in the lodge, an initial capacity of approximately 150 people.

MR. DOWLING:

How many staff do you think would be required to service the operation?

MR. O'DONNELL:

We would need staff in the neighbourhood of 15 to 20. But I'm just guessing.

MR. DOWLING:

With visitors and staff we might estimate a total of approximately 200 people.

MR. O'DONNELL:

There are two aspects of staffing, one for the facility, the other for programs. You would add another 10 to 15 people for programs such as trail riding, hiking and so on.

MR. DOWLING:

What market area do you expect to serve?

MR. O'DONNELL:

The planning team and the client see the main draw from the Peace River block, especially Grande Prairie. This is the first major recreation development in that area, so they certainly would see it as a boon. They are using Two Lakes quite a bit now.

I would see the second market area as the movement of people from Highway 16 going to Jasper. The overflow traffic from Jasper would come through Grande Cache and up to the site. We really have two major tourist arteries on either side of the area, Highway 16 and Highway 43. We have tremendous potential there.

MR. DOWLING:

Would you expect people from Edmonton?

MR. O'DONNELL:

Yes. Our preliminary analyses involved census districts 11, 14 and 15 because we felt this to be the area of greatest access. But I'm sure once the uniqueness is advertised we will be drawing from other areas, Saskatchewan people coming up for skiing, the Jasper crowd and so on.

MR. DOWLING:

Has the choice of your site been predicated on the existence of an adjacent airstrip?

MR. O'DONNELL:

It has been determined by the fact that our client has an option on a piece of land in that particular area. The fact that the airstrip happens to be there is an added feature. We would not build an airstrip on another site if we had to move.

MR. DOWLING:

Would you require a protected area around the development so that you could have your trail rides, hiking, cross-country skiing and so on, or would you lease an area sufficiently large to carry out all your activities?

MR. O'DONNELL:

The lease would relate to the immediate site. The use of the area surrounding it would relate to trespass rights. This is what we'd be negotiating after that.

MR. DOWLING:

You would need some protection then?

MR. O'DONNELL:

Not necessarily for all the land, but certain areas of it.

MR. DOWLING:

How do you feel about the airfield becoming an important aspect of your operation? It is not an all-weather airfield, and I'm sure there are times when the forestry service not only can't fly in there but the pilots don't want to land because it gets too muddy. What are your feelings about guests? If you get them in there you also have to get them out. What are you going to do when people arrive with their airplanes and they're stuck in the mud on the airstrip?

MR. O'DONNELL:

Obviously we'd bus them out to meet their schedule.

The Alberta Forest Service seems to think we could reach an agreement to upgrade the airstrip to be an all-weather strip. In addition, we could share the maintenance of the site, but they would still like access to it during the summer months. We have still to analyze - and this falls into Mr. Kinisky's further statement about snow conditions - the exact number of days of flying during the winter period. These being the restrictive factors, we would either continue it or drop it accordingly.

MR. DOWLING:

What auxiliary developments would you expect in conjunction with your own operation? Would you expect a service station in the area?

MR. O'DONNELL:

No, we don't anticipate that kind of development.

MR. DOWLING:

What about servicing the aircraft?

MR. O'DONNELL:

There is a fuel stash on the site right now. If more buildings were required, we'd put them in. We're not considering auxiliary facilities that do not relate directly to the program of the site. We're only 35 miles from Grande Cache, which means ample subservices, although there is a distance. Developments that are ski-orientated, such as Sunshine for example, are isolated this way. They may have service stations on-site, but I haven't been there.

The big run is from Grande Prairie into the site. We don't anticipate supplying that kind of facility right now, but if it did come, we would hope it would be developed by the local residents from Grande Cache and Grande Prairie rather than us.

MR. DOWLING:

How many miles is it from Grande Prairie to the site?

MR. O'DONNELL:

We're approximately 125 to 130 miles from Grande Prairie. From Hinton we're another 125 to 130 miles, so it's equidistant from the two centres.

MR. DOWLING:

Would considerable road improvement be required to make your operation viable?

MR. O'DONNELL:

The proposed highway would certainly have an influence on traffic through that area.

MR. DOWLING:

Is there a proposed highway through the area?

MR. O'DONNELL:

The Department of Highways has done a study with regard to a proposed highway.

MR. DOWLING:

There would be a considerable public investment in building that particular road which, obviously, would have to service more than your specific development because of the high cost of bringing it to a standard adequate for travel, especially in the wintertime.

MR. O'DONNELL:

The proposition I'm talking about, which you are certainly aware of, is the extension from Grande Prairie to Hinton. I don't see a 70 mile an hour strip such as Highway 16. I have to refer again to the Kananaskis. I thought that article in Weekend gave us a criterion for planning in the future. Driving into Grande Cache two days ago, we were kept down to 50 and 60 miles an hour because of the conditions of the road and this certainly directed attention to the kind of environment we were going through. I would hope they would consider this in putting that extension from Grande Prairie through to Grande Cache and Hinton.

MR. DOWLING:

Are you familiar with the Foothills Resource Allocation Study which has been under preparation for some time? Is this of any value to you?

MR. O'DONNELL:

Certainly, if we could get at the information. One of the reasons I presented my brief in Edmonton, on behalf of the Alberta Recreation Parks Association, was with regard to a data bank. It's great to have studies, but at the present time it seems that departments hoard their information and are not willing to share it, particulary with private individuals. This is certainly not to the good of the people.

MR. DOWLING:

Would this information be of value to your study for this development or do you think you would need additional information?

MR. O'DONNELL:

I think a lot of it is there, obviously because of the terms of reference. But with regard to that site, we would have to do on-site adaptation of that particular data. This is standard with every proposal.

MR. DOWLING:

We're very much at the conceptual stage right now, so we can't talk about hard dollars. But in your view is it going to be difficult to raise funds in order to develop this proposal?

MR. O'DONNELL:

No.

MR. DOWLING:

Assuming that you had an immediate go-ahead, how long would it take you to develop a final master plan?

MR. O'DONNELL:

The first restricting factor, of course, is how much information is available, what access we have to it and how much we would have to do on our own. I think the range would probably be between four to six months.

DISCUSSION ON TORRENS RIVER RECREATION RESORT PROPOSAL

MR. KYLLO:

Leo Kyllo, Western Conservation Foundation.

Mr. O'Donnell and the planning committee have integrated the various disciplines in the planning process right from the start. However, one of my concerns is the distance from any present access facility other than the airstrip.

The airstrip is possibly a source of contention in itself. The present use will be quite limited and upgrading has been suggested, but how far do you upgrade an airstrip? Do you upgrade it to accommodate not only small planes but fairly complete air services?

Access by road is vital to the viability of such a project. Presently we don't know about this access. The road might go fairly close to the site and it might not. There might not even be a direct all-weather link between the Grande Cache and Grande Prairie areas. A development of this nature requires a road so perhaps the road has to come first. If it does come first, it should because of its own merits and not necessarily due to the potential use of the Torrens River site.

I would suggest there are alternative locations available although perhaps not sites that have a present lease or an option held by a particular developer. But around the Grande Cache area, with an existing airstrip, highway and rail link, I think an alternative site could be found with perhaps as high a potential as the Torrens River site. It might be a little farther from the Grande Prairie market area, but I don't think it would be that much farther if a road is developed.

Control over this large block of land is something to be concerned about. A lease on the development site would be required, but I don't think any exclusive right including that of forbidding trespass on the surrounding area should be allowed. Public land should not be held under exclusive lease, at least not in large blocks. I would suggest that maybe a site of up to 300 or 400 acres could be held exclusively under a recreational lease, but any other trail or recreational development extending from that should only be on a licence which would not provide exclusive use.

It has been suggested that trails will be located and that the Kakwa Falls will be protected due to its distance. But it always seems that people are the hardest animals to control and if you suggest they go somewhere they are quite likely to do just the opposite. Perhaps some management plans can be worked out, but it should be quite seriously considered at this point.

The enviromental concerns of pollution and sewage treatment are to be considered. In the conceptual stage we needn't be too concerned about these but we feel they should be closely examined later.

MR. BUHOLZER:

Bill Buholzer, Peace River Regional Planning Commission.

We would like Mr. O'Donnell to tell us more about his clients; specifically, who his clients are, where they live and if they have any previous experience in this kind of development.

This morning both the Grande Cache Chamber of Commerce and the new town of Grande Cache supported this proposal on the grounds that it would contribute to the economic viability of their community. Does Mr. O'Donnell believe the proposed resort, situated as it is some miles away from the town, will help Grande Cache in an economic sense? If he feels it will, we would like him to specify how.

You have obviously attempted to provide for a range of visitors to the proposed resort, young and old and handicapped people. Do you anticipate the development will be within the economic reach of all Albertans or just those able to afford air travel or somewhat circuitous ground travel to the area?

On page 16 you have a list of estimated market populations some of which appear to be duplicated. For example, I believe Edmonton is within Census Division 11. Edson and Hinton are within Census Division 14 and Grande Cache and Grande Prairie are within Census Division 15, so those figures have been counted twice.

Also would Mr. O'Donnell clarify the demand figures given on the succeeding pages of the proposal in light of Dr. Powell's comments this morning regarding the percentage of people who do not leave our major metropolitan areas in pursuit of outdoor recreation experiences? Dr. Powell mentioned that 84 per cent in Calgary leave the city only once a year and that 50 per cent do not leave at all.

It is our understanding there are already some outfitters in the area around Torrens River. Has Mr. O'Donnell looked into the operations of these people and anticipated the effects the Torrens River Recreation Resort will have on them?

You mentioned in your proposal that the spring break-up in this area occurs around March. We would like you to either confirm that figure or change it, because May seems to us to be a more accurate break-up time for this part of the region.

You have proposed quite a wide range of facilities for the resort. It's the impression of some of the commission members that a number of these facilities are a bit far removed from the wilderness experience that the Torrens River area can offer; specifically, a tavern accommodating 250 people. We would like your reaction to that.

Regarding the location of the resort, the proposed area is within the Procter and Gamble pulp agreement area, and it is also immediately north of Horne Ridge which is a prime site for an open pit coal mine. How would logging and mining affect the attraction of this development for prospective customers?

Lastly, will this proposal be presented at the hearings in Grande Prairie or is this the only presentation?

MR. O'DONNELL:

With regard to Mr. Kyllo's questions, distance is presented to the planning team as one of the restrictive factors, so we have no control over it. That is the site we're working on and there is nothing else we can say about it. I agree, other sites may have greater potential. However, we are working on this particular site and that's the limitation right there.

We've talked about aircraft to a couple of airlines, one out of Grande Prairie and one out of Lethbridge. They seem to feel the size of the aircraft is compatible with the space there and no extension of runways or increase in aircraft size would be required, relative to

the size of the groups of people we'd be bringing in. Let me stress that we don't want to turn it into a jetport which was the reaction some people had in Edmonton. That is not our intent. I stress again, the airstrip happens to be there and we're going to take advantage of it. If it was not there we would not build an airstrip. I think this unique access provides another kind of experience people can have in getting into the site.

With regard to road access, until a year ago when the Smoky River washed out the access from Grande Cache, there was access from both Grande Prairie and Grande Cache. We would not hope that the government would base its road building on our particular proposal. This would be ridiculous. But we would hope they'd take a look at the broader impact of the movement of people through this area as it affects not only Grande Cache, the focal point, but also Grande Prairie and Hinton which are jumping-off points to this particular area.

With regard to control of people moving from the site, we would hope they would have to go through our site in order to experience what we're promoting here.

My next answer is to Mr. Buholzer regarding the client. I am not at liberty to give you complete information, and I have the right to withhold that information. However, one of the major shareholders in this particular consortium is a gentleman by the name of Mr. George Isberg of Grande Prairie Agencies. That's about all the information I can give you at this particular point.

Grande Cache gave us their support based on the fact that our development would contribute to their economy, and I still believe that. So I disagree with the statements you're making with regard to Grande Cache.

Is the kind of program we're promoting within the economic reach of all Albertans? Yes, I believe it is.

With regard to the market figures, the analysis and the material that we went to, you're right.

With regard to the demand figures from the study that was done in Calgary I would have to see other studies done in Edmonton, Grande Prairie, Lethbridge, possibly Camrose and other city developments in Alberta in order to take them as the reflection of all urban population movements.

We have not contacted the outfitters in the area. We do not know what the effect of our development would be on their operations. Obviously we are in an area that would conflict with hunting as well as backpacking. We'd have to work this out with them.

With regard to the spring break-up, I did not say it was in May. I only indicated that we would allow a period of approximately eight weeks in our initial proposal for dry-up. Spring, as you know, does not always come at a particular time of the year. It can range between two and four weeks either way.

The auxiliary facilities are simply proposals at this time. This is a business venture. When people are not engaged in the program offered by a private, commercial, recreation site, the tavern provides a very lucrative type of income. It's a money-maker, let's face it.

However, the area we allow would not only serve as a tavern - the first thing that comes to people's minds is a drunken hall - but

would allow for a breakdown into smaller areas. The Alberta Liquor Control Board is breaking down large halls into smaller ones and allowing children into the areas where liquor is being served. One of the proposals - and my sons will be happy with this, they're only seven and four - may allow them to drink beer in the presence of their parents. Maybe we'll have this legislation by that time, and the family experience can really be promoted. Having had experience in the United States I can say that it's not always a drunken experience to have liquor in a particular area. It can be controlled and I think the parents can do this. So, just because we propose at this time a 250 person tavern does not mean we're promoting drinking or that kind of activity.

Yes, the logging and mining would detract from the attraction of the site, because we depend on the natural features of that area to serve as a drawing card for the activities we offer.

OPEN DISCUSSION PERIOD

DR. LINDSAY:

Dr. Lindsay, optometrist in Grande Cache.

Most of the presentations have been made by organizations or by industries with a great deal of background and expert help. The only individual presentation we have had here today came from Mr. Mel Williams, who in turn, was requesting consideration for a particular project. I bring my personal observations, what I have seen and what I have thought about the development of the area. I feel that I, as a person, am one of the resources of the eastern slopes and I haven't heard much today about the people of Alberta as a renewable resource.

The eastern slopes are a necessary restorative from the effects of city tensions. Mental and emotional illnesses expressed in increasing crime, drug and alcohol abuse and accident rates are a part of this. Noise and air pollution, traffic, crowded living conditions, anxieties about providing money for living space and family maintenance contribute to the resultant high cost of social services for family breakdowns. This is part of the necessity for preservation of the eastern slopes. The population requires the restorative effects of returning to biological beginnings as advocated by anthropologists Morrison and Lorenz, for example. I feel this last mountain wilderness can never be replaced. We should consider minimal development.

That the division of land in the form of leases is already made to large industrial corporations all the way to the Arctic raises in my mind the question of the sincerity of these hearings. Commitments are made by government to companies for many years ahead. What controls are written into the contracts? Do these leases prevent the establishment of further natural recreation parks under provincial and federal development since they must be purchased back by the government that sold them?

Much emphasis has been given to the minimum use of land by industry, but little has been mentioned of the use in construction of roads, rail, power or pipelines, and exploration roads that seem to be placed by convenience rather than by plan.

Two areas within the government, I feel, are prime abusers of land. The correction by the government of its own departments is necessary for the protection of the watershed area. For example, in constructing the Alberta Resources Railway, the CN right of way is not protected by vegetation. The construction of embankments utilizes a new step-up type of construction instead of the usual pyramid from the base to the rail. The high runoff has been a major contributor of silt in our streams. The erosion of the embankment is eliminating the stepdown construction. At what time does the natural stable piling of the embankment material let go, so that we lose more expensive rail line? Expensive repairs and perhaps the eventual disaster of the loss of a train are the result.

Presently CN is mining 800,000 cubic yards of rock just outside a town that is endeavouring to establish a tourist industry. This does not seem compatible with what the controlled use of land should be.

Our experiences on Highway 40 are examples of the Department of Highways' construction of roads to a minimum budget resulting in future high maintenance, interruption of business and large losses of income by residents in the area. The initial road was developed. But

much future development is placed under road maintenance, rip-rapping for streams, diversion dikes, larger culverts, road oiling to hold the surface. We have a large run-off and erosion from embankments and borrow pits from unprotected slopes.

There seems to be a minimum concern to regreen the areas that were used. Top cover, buried in the road base, could be used to recover the mining for soil and gravel in the borrow areas, and for building faster berm and side road recovery. Why the extreme widths of roads in construction? Why the burning of timber instead of its use by logging and pulp operations?

Utility companies can now march power and gaslines across the country. What consideration has been given to multiple-use corridors of road, rail, power, gas and oil lines in the developments?

We should consider establishing controls for all developments within urban areas to avoid the urban sprawl of the East that extended to and destroyed the wilderness. Lakes are completely developed and used by residents, limiting access by visitors.

Controls should be extended to developers in towns who clear off the natural growth and do nothing to restore it, thereby creating rural slums and poor living conditions which affect the stability of the community.

Established townsites should be used as transportation and base centres for visitors. This would leave natural areas relatively untouched.

We have not heard too much about the use by local Indian populations. Here we have people who know the areas where they live. Why can we not utilize the families of Indians to police, patrol and report changes they see in their own areas to officers of the Department of Lands and Forests or the fish and wildlife people? Indian equipment operators could be trained for maintenance of the roads and trails where white families are isolated and incompatible with the area. This would reduce expenses for departments of maintenance and employ Indian families within their own areas.

We hear a great deal about the financial value of timber resources within an area, but what is the dollar value of undeveloped areas, of a stand of timber or clear streams and lakes? We think of development only as creating income. What potential income is there in not developing an area?

MR. KYLLO:

Leo Kyllo, Western Conservation Foundation.

Mention has been made today about transportation and utility corridors. It's my understanding that high-voltage powerlines and pipelines do not go hand in hand. It seems that the electric utility sets up an induction current in the pipeline resulting in corrosion and subsequent failure. So these two don't work out quite as well as it seems at first.

Mr. Panchysyn from Manalta Coal Mines mentioned today that they were issued a lease in 1969 for the area in and around Rock Lake within the Willmore Wilderness area. It seems to me that there is a lack of coordination and compatibility among government programs when the Department of Lands and Forests is supposed to be enforcing The Willmore Wilderness Park Act passed in 1959, and 10 years later the Department of Mines and Minerals is still leasing mineral claims in

this wilderness area. Perhaps we need to have a review of the governmental agencies and their interaction with each other.

MR. BUHOLZER:

Bill Buholzer.

The Peace River Regional Planning Commission has been talking to the people of the region over the past couple of years about goals and objectives for regional development. We find they are not convinced that Albertans, and specifically residents of the Peace River region, are receiving as many benefits as they could from the resource endowments of their region. They note the ownership of people using the resources of their region basically for profit-oriented enterprises. Today, on two occasions, questions have been asked concerning ownership and answers have not been forthcoming. I would urge you to pursue this matter in your deliberations. We think it's a very important consideration in decisions regarding resource allocation in the foothills.

Also, these hearings are being held during certain hours of the day that forbid participation by a lot of people in Alberta. I would urge you to consider this problem, and perhaps if you undertake hearings of this nature again, to try to make them a little more accessible to people who cannot just up and leave their jobs at 10 o'clock in the morning. Weekends or evenings would be better.

MR. DOWLING:

We have conducted hearings on Saturdays, and as a rule we conduct our hearings into the evening hours. There has to be, of course, an indication that people will be here in the evening in order for us to have something to listen to. We've spent about 16 days on hearings now and on about 13 or 14 of those days we have been sitting in the evening so people can come after work. Attendance does seem to increase at that time. We do try to make ourselves as accessible as possible.

# LAND USE
# and
# RESOURCE DEVELOPMENT
# in the
# EASTERN SLOPES

## GRANDE PRAIRIE
## JULY 12

Alberta

ENVIRONMENT CONSERVATION AUTHORITY

L. Sully summarized the Peace River Regional Planning Commission's Position Paper presented formally in Grande Cache.

QUESTIONING BY THE AUTHORITY

MR. KINISKY:

Would you outline the approximate locations of the proposed roads connecting Grande Cache to Grande Prairie?

MR. SULLY:

A study has been done by the Department of Highways. The three routes it has outlined are separate from the existing forestry trunk road. Two of them follow a more easterly route from Muskeg Corner, taking off from there and following a more or less northerly route. Of these two easterly routes, one passes on each side of Musreau Lake. I may stand corrected on that.

The other route that we have supported as the most logical route follows the existing highway to Grande Cache, then goes north from Grande Cache, past the McIntyre Porcupine mine, up out of Smoky valley and connects with the Kakwa tower south of the Cutbank River in Township 63, Range 7. It would cross the Cutbank River near the existing Procter and Gamble haul road and cross the Wapiti just south of Grande Prairie.

MR. KINISKY:

Would you outline some of the advantages and disadvantages of these routes?

MR. SULLY:

The westerly route has been estimated to cost some $7 million more than the other two routes. Problems have been experienced to date at Grande Cache. If Grande Cache is to remain as a centre, we feel it needs some secondary industry. It can be tourism but the town must get away from the dependence on coal mining. We also feel that Grande Cache is a potential tourist centre. Unless a highway is built through Grande Cache, the tourist traffic, rather than being funnelled through Grande Cache benefitting the merchants and businessmen of the town, will by-pass Grande Cache and travel from Hinton to Grande Prairie, not going down that westerly extension.

We're also afraid that a secondary village or hamlet will develop at Muskeg Corner, a service centre. We don't want to see that. We feel that the existing facilities at Grande Cache are sufficient.

MR. KINISKY:

Is anyone now showing interest in the Muskeg intersection?

MR. SULLY:

Do you mean individuals interested in developing it?

MR. KINISKY:

Right.

MR. SULLY:

We've had no discussions with anyone.

MR. KINISKY:

No applications for land use?

MR. SULLY:

Not that I know of.

MR. KINISKY:

Do your highway cost estimates come from the Department of Highways?

MR. SULLY:

Yes, the Planning Branch of the Department of Highways.

MR. KINISKY:

Was there a publication concerning these various routes?

MR. SULLY:

Yes. I'm not sure whether or not it is a public publication.

MR. KINISKY:

Could you make it available to us?

MR. SULLY:

I certainly could.

DR. TROST:

Would you describe the population growth in the planning commission's area, with particular emphasis on the foothills and mountain part of that region? I suppose the two principal centres are Grande Prairie and Grande Cache.

MR. SULLY:

Grande Prairie is a bit outside what you would consider the eastern slopes. Grande Prairie, due to the coming of the pulp mill, has experienced very rapid growth in the last two or three years. Two or three years ago the population was about 12,000; the figure has gone up about 3,000 or 4,000 in that period.

Grande Cache is a very new centre. There were no permanent residents there prior to 1969. I believe the population is now around 3,000. It was as high as 3,500 before the closing of No. 5 mine. When that mine was closed in January, some 150 miners and their families left. I've been told the population loss was about 500 or 600 people.

DR. TROST:

What population would use the foothills and mountain areas of the Smoky River basin for recreation?

MR. SULLY:

I don't know if I can give you a figure. Due to the locations of Grande Prairie and Grande Cache, a large percentage of the people

living in these centres and in the region are oriented towards outdoor recreation and use the surrounding area for recreation. They are not as oriented to urban activities as those in some centres further south.

DR. TROST:

Is the general population rising in the area of the Peace River Planning Commission? Have you any figures?

MR. SULLY:

We don't anticipate any major growth of population. One of our concerns is a migration from the region. The region is fairly dependent on the extractive resource and primary industries, including agriculture. A trend we identified in the goals and objectives study was a trend for young people from the farm population to leave the region and go to Edmonton, Calgary, et cetera.

Replacing them was a certain number of people coming in to fill positions in industry. One of the problems is that many of these people, due not to their own fault but to the nature of the industry, are locationally unstable; they come, they go, they transfer. We really don't know what will happen in future.

DR. TROST:

Are people coming to Grande Prairie from outside northern Alberta, or are they coming from smaller towns in the Peace River area?

MR. SULLY:

I think a little of both. Perhaps you could question the Procter and Gamble speaker on that; he may have better statistics than I. Roughly I would say it's 50-50. Many people come from outside this part of Alberta and from Canada generally. Several families I know of came from the U.S. and the western coast. Many local individuals have been employed in the operation too.

DR. TROST:

What are the resource and industrial elements which cause the growth and development of Grande Prairie?

MR. SULLY:

This rise in population of the last two or three years has been strictly due to the establishment of the Procter and Gamble operation.

DR. TROST:

Since Grande Cache is a new town, has all its population come from outside?

MR. SULLY:

Yes. Whether it's good or bad, many of the initial positions when McIntyre operations began were filled by people from outside Alberta. McIntyre personnel mentioned that when the mine initially opened, management personnel for the development of a coal mine was nearly non-existent in Alberta, so they imported people from Great Britain and eastern Canada. Many people came into that operation from outside Alberta.

DR. TROST:

Because of the skill required?

MR. SULLY:

Yes, the skills just weren't available in Alberta.

DR. TROST:

Do you feel that people would remain in the Peace River area if there were employment for them?

MR. SULLY:

Yes. This is just a personal observation. Some people who leave are not dissatisfied with the job opportunities and the money available here, but rather with the amenities such as educational and recreational facilities. They feel that the opportunities are better in other centres. For example, families with children approaching university age may have some impetus to move to a larger centre.

Whether they are in Grande Cache or Grande Prairie, I think people find the Peace River country very beautiful. If some of these minor problems could be overcome, I think they would be very willing to remain here.

DR. TROST:

Are agricultural lands developed to the maximum? If so, where are they?

MR. SULLY:

In the Smoky River basin or the Peace River country as a whole?

DR. TROST:

Just the mountain and foothills section.

MR. SULLY:

As I mentioned the agricultural capabilities of that area are very limited. I don't think there is any room for development, outside of perhaps limited grazing in some areas. On Figure 10 we've identified some of the major grazing leases to the north of the area. Metis co-ops around Grande Cache run cattle and horses, so there is grazing in that area too. It is a limited capability.

DR. TROST:

What about use of the land for forest purposes?

MR. SULLY:

I think that with the three operators in the Smoky River basin right now, Procter and Gamble, North Canadian and Imperial Lumber, we've just about reached our limit.

DR. TROST:

What about coal?

MR. SULLY:

Whether the provincial government follows a development or a non-development policy of coal resources, it has only touched on it at Grande Cache. Figure 8 shows that coal leases lie all along the mountains and foothills. A coal capability is there which hasn't been touched yet.

DR. TROST:

Is there a long history of coal exploration in this part of the province, as in other parts?

MR. SULLY:

I'm not sure. It depends on what degree of coal exploration you talk about. People have been scratching around for coal there ever since the settlement of the Peace River country. In the early days they looked for coal for domestic purposes in the outlying foothills. But in the inner foothills and mountains it is a more recent activity than in some areas to the south.

DR. TROST:

What about oil and gas?

MR. SULLY:

Oil and gas has been here 20 years I expect. The capability is limited. This is evidenced by the large number of abandoned dry wells drilled in the foothills and mountains. The two developed fields are not in the foothills, they are lying in the outer foothills. The gas of the foothills and mountains has been described as sour gas. It remains to be seen whether or not it will be developed.

DR. TROST:

To your knowledge have those areas been fully explored?

MR. SULLY:

No. I think they have just been initially explored.

DR. TROST:

What about the tourist industry?

MR. SULLY:

The tourist industry has hardly touched on the Smoky River basin. To date people from Alberta, the U.S. and areas outside Canada have located their activities mainly in the Jasper-Banff park, the areas further south. Tourism hasn't come into its own in the Smoky River basin because of the very poor access. It's very hard to get into the area, even if you are interested in having a look around.

DR. TROST:

What about secondary industries?

MR. SULLY:

They are minor, compared to the primary and extractive resource industries in this region.

DR. TROST:

Would you classify as a secondary industry the manufacture of lumber products, pulp, plywood and so on?

MR. SULLY:

I would describe it as secondary processing in the primary stage. I don't think I'd describe it as a secondary industry.

DR. TROST:

What about the recreational use, including hunting and fishing?

MR. SULLY:

The area has been used for a number of years by residents of the Peace River country. Some recreational facilities have been developed. A number of campsites have been developed by the Alberta Forest Service; these are quite heavily used by regional residents.

DR. TROST:

Is there room for further recreational use, including hunting and fishing?

MR. SULLY:

Yes I would think so. The game populations in the Smoky River basin are in very good condition to date. I hope we can keep them that way. I'm not sure how much further hunting and fishing could be expanded. There is a limit.

DR. TROST:

What is the state of watershed protection?

MR. SULLY:

I feel there is real room for improvement.

Before I came to the planning commission I worked with the Alberta Forest Service's planning section on the study which Julian Nowicki coordinated. We were asked by the Department of the Environment to do land-use studies in the Smoky River basin and the northern foothills area. We had one heck of a time getting information on watersheds, stream flow, erosion hazards, soil - the information just isn't available and the detailed field work hasn't been done. Some work has been done by the federal government on flow volumes, but on a very limited basis. I think there is real room for improvement in that area.

A SUBMISSION TO THE ENVIRONMENT CONSERVATION AUTHORITY

# LAND USE AND RESOURCE DEVELOPMENT ON THE EASTERN SLOPES

## - SMOKY RIVER BASIN -

Peace River Regional Planning Commission

Public Hearings

Grande Cache - July 10, 1973

Grande Prairie - July 12, 13, 1973

Presented By: L.A. Sully

## PREFACE

This submission consists of four main parts. First, current development of the Smoky River basin is outlined in some detail, with a look at the overall situation today. Second, there is a discussion of some of the findings of the Goals and Objectives Study carried out by the Peace River Regional Planning Commission in 1971. The third section of the paper is entitled Future Development and it is a statement of planning policy with recommendations for each of the major land uses in the Smoky River basin. Part four gives a view of the future role of the Peace River Regional Planning Commission. It compares areas of jurisdiction and the relation of government bodies to each other.

This paper does not pretend to be an in-depth study of resource interaction or land use alternatives. It merely touches on some of the problems and issues which we feel should be discussed at this time. The Commission hopes that at some time later each of the resource sectors and its particular problems can be discussed in much more detail. At such time, the Peace River Regional Planning Commission will offer whatever assistance and facilities that it has available.

Lorne A. Sully
Planner
Peace River Regional
Planning Commission

## A. Current Development

### 1. Coal Mining

Coal mining in the Smoky River basin is currently focused on the New Town of Grande Cache. McIntyre Porcupine Mines Limited currently operate two mines near Grande Cache and they have a third mine under contract to Grande Resource Management Limited.

One of the two mines operated by McIntyre Porcupine, No. 2, is an underground mine. It is currently a major producer for the company and has been in production for several years. The other mine operated by McIntyre, No. 9, was approved by the Energy Resources Conservation Board earlier this year and is not yet in production. The No. 9 mine is a strip mining operation as is No. 8, the mine operated by Grande Resource Management.

The No. 2 underground mine currently employs 238 people. The No. 8 strip mine employs 132 persons. In addition there are about 115 salaried staff directly involved in the two operations. The company anticipates that when the No. 9 strip mine is in production about 160 workers will be employed. The No. 8 strip mine is due to be phased out, however, and it is assumed that some of these employees will be transferred to the No. 9 mine.

Until January of this year, McIntyre also operated an underground No. 5 mine. Due to actual mining problems, this mine was closed and about 150 workers were laid off. This lay-off had economic repercussions for merchants in the town and became a topic of some concern. The opening of No. 9 mine should overcome these problems however.

It is expected that the No. 9 mine will become a major producer for McIntyre. Initial plans for development call for a mine site of over 700 acres. This mine area will allow recovery of about 8 million tons of coal over 6.4 years. The 8 million tons are only part of an estimated 97 million tons that exist at

that site. Full recovery of these reserves in the future will require a mine area substantially larger than 700 acres.

In their application to the Energy Resource Conservation Board for No. 9 mine, McIntyre did not present a reclamation plan for the site. The company did, however, present a statement of intent to reclaim the area, sometime in the future. Backfilling of the pit was not proposed, McIntyre said, to avoid sterilizing any coal reserves. The company went on to state that, "it is envisioned that future development of the property will take the form of expansion from this developed pit, at which time backfilling of this mined area will take place."

It should be noted that there has been a considerable amount of both public and private capital invested in connection with coal mining at Grande Cache. A completely modern town with all facilities was built from the ground up to house and support some 3,500 residents. In addition to the actual townsite, a coal processing plant, a power station, a highway, and a railroad have all been built in connection with the coal mines. Invested capital, if you include the Alberta Resources Railroad, comes to a figure of about 250 million dollars.

As mentioned, with respect to the problems at No. 5 mine, Grande Cache has had some ups and downs in its early life. As a result of the fluctuations in stability of Grande Cache, the provincial government under the Public Inquiries Act, has established a commission to hold public hearings this summer to investigate the history and circumstances of the establishment of the New Town of Grande Cache. Under the terms of the investigation, the Commission, headed by N.R. Crump, will attempt to:

1. Determine the economic viability of the operation of McIntyre Porcupine Mines Limited and of the community itself, and make recommendations as to steps which could be taken to strengthen such economic viability.

2. Review the actions taken to date by both the previous and present government administrations in providing support and public funds for this community and to recommend to the government alternative courses for future government policy and programs for this community.

In addition to mining activity in the immediate Grande Cache vicinity, coal exploration has been carried out over much of the foothills and mountain area northwest of Grande Cache and into British Columbia. Coal deposits lie all along the Smoky River headwaters including parts of Willmore Wilderness Provincial Park. Coal leases on this part of the eastern slopes are held by at least nine different companies.

Horn Ridge, which lies between Kakwa Falls and Two Lakes, has been rated as one of the best potentials in Alberta for a new strip mining operation.

2. Forestry

In the Smoky River basin there are three main companies involved with the forest industry. The size or scale of their operations varies from moderate sized companies involved with sawlog timber, to a large sized company engaged in pulpwood harvesting.

Imperial Lumber Company is one of the sawlog operators and they hold timber quotas in several parts of the area. Employment figures were not available but the Company operates two small sawmills, one at Sherman Meadows and another south of Grande Prairie at Grovedale. As well they have a lumber mill in the City of Grande Prairie. Imperial Lumber logs mature and overmature timber on clearcuts in the order of 40 to 80 acres in size.

The other company involved with saw timber logging is North Canadian Forest Industries Limited. North Canadian logs on timber quotas and on a Management Agreement Area which it holds with the Department of Lands and Forests. The Company operates on an area south of Grande Prairie roughly

between Musreau Lake and the Little Smoky River near Highway 43, and as far as the Simonette Tower on the Forestry Trunk Road.

North Canadian builds and maintains most of its own haul roads to deliver logs to the stud mill and plywood mill that the Company operates in Grande Prairie. They currently employ 486 personnel full-time and 388 part-time, for an annual average employment total of about 616.

The largest company operating in the Smoky River basin is Procter and Gamble Cellulose Limited. In this area they hold a 5,300 square mile lease covering roughly twice as much area as the North Canadian lease. Parts of the North Canadian Agreement area and all of Imperial Lumber's timber quotas overlap with the Procter and Gamble Agreement Area.

Procter and Gamble has constructed a pulp mill near Grande Prairie and their operation will employ over 800 people. The Company has constructed a major all-weather haul road south from their mill site, across the Cutbank River, to Kakwa Tower. From there it proceeds west to link up with the Nose Mountain Road. Near Kakwa Tower the company is planning to build a 20 year camp which will be a permanent residence and work base for about 100 woodland employees.

While Imperial Lumber and North Canadian are primarily involved with sawlog timber, Procter and Gamble has a pulpwood operation which is able to utilize timber smaller than sawlog dimensions. There is also a difference in the cutting patterns between the two types of logging. North Canadian and Imperial Lumber are logging mature timber with cut-blocks in the order of 60 to 80 acres. Procter and Gamble will utilize both mature and immature timber with cut-blocks 250 to 300 acres in size.

Through the production of lumber, plywood or pulp, timber from the region is generally treated in some way prior to export from the area. The

Economic Base Study conducted by the Peace River Regional Planning Commission notes that this secondary activity (sawmills, planer mills, pulp mills) is an important adjunct to the primary activity in terms of providing further employment opportunities and retaining some of the actual value of the product within the region.

3. Oil and Gas

There is a large part of the Smoky River basin which has not produced any significant amounts of oil or gas although there are major fields to the east of the area, near Fox Creek. However, there are two producing fields south of Grande Prairie in the Smoky basin - the Gold Creek Gas Field and the Lator Oil Field.

Seismic exploration activity can be witnessed in all parts of the area but it has been most intensive, (i.e. many seismic lines on a small area), in and around the two developed fields. Exploration activity has been less intensive towards the southwest portion of the basin.

There have been a considerable number of wells drilled throughout the area, but outside of a few isolated gas discoveries, most of the wells are abandoned. The Energy Resources Conservation Board has rated parts of the basin as having a moderate capability to produce petroleum but this rating decreases towards the southwest.

About 50 percent of the total area is covered by petroleum and natural gas leases. A moderate amount of seismic exploration and well drilling is continuing in association with these leases.

4. Recreation

Recreation facilities are scattered over a wide area in the Smoky River basin. They are not numerous considering the size of the region and they provide

only the basic necessities for people using them. For the most part, these facilities are in the form of Alberta Forest Service campsites along the main roads.

In the vicinity of Grande Cache there are four such campsites, including Rock Lake on the boundary of Willmore Wilderness Park. To the north, there are two campgrounds along the Goodwin - Muskeg Forestry Trunk Road. There are also small campgrounds in the northwest part of the area at Shuttler Flats and Pinto Creek. The most widely used campground is at Two Lakes, a distance of a hundred miles from Grande Prairie.

Most of the campgrounds are quite small in terms of carrying capacity. Some are located on more attractive sites than others. The main attraction at the Two Lakes recreation area is two small lakes lying close together between the inner foothills. The north lake is 84 acres in size with a maximum depth of only 16 feet. The south lake is larger; it is 130 acres and has a depth of 40 feet. There is currently a campsite on each lake with a total of about 60 camp sites.

In addition to the campgrounds mentioned, there are three undeveloped recreation reserves in the Smoky basin - Musreau Lake, Kakwa Falls, and Nose Lake. Musreau Lake is currently under consideration as a provincial park.

Aside from Two Lakes, Musreau Lake is one of the few lakes in the Smoky basin which could support a park oriented towards family outdoor recreation. The lake is only rated as having a Canada Land Inventory capability of Class 4 (moderate) but the area is very important in a sub-regional context. Lakes of any kind are extremely scarce south of the Wapiti River. Musreau Lake will support fishing and the surrounding area currently has populations of upland wildlife. In addition, parts of the shoreline are suited to the construction of family and other recreation lodgings. The shoreline also

provides access to the lake which is rated as suitable for popular forms of family boating.

The Provincial Department of the Environment is determining the suitability of an area surrounding Kakwa Falls for a Restricted Development Area status. The Land Use Assignment Section of the Department of Lands and Forests is planning to do a bio-physical study in the area.

The Willmore Wilderness, a part of the Smoky basin lying southwest of Grande Cache, does have status something similar to a provincial park. The Willmore Wilderness Park is not a provincial park in the normal sense, however. The Willmore is a special case, in that it was established in 1959 by a special act of the legislature, the Willmore Wilderness Park Act. The Act generally outlines the objectives of the Park and the status of land within its boundaries. The Willmore Act is less specific than the Provincial Parks Act. The Willmore Act reads:

> Section 3.2 The Lieutenant Governor in Council may:
> (a) increase the area of the Park by the addition of lands adjacent to it, or
> (b) decrease the area of the Park by the withdrawal of lands from it.

It should be noted that in its brief history, the boundaries of the Park have already been altered and its size decreased.

The overall objectives of establishing the Willmore Wilderness are outlined in a section of the Act which reads:

> Section 4 The Park is dedicated to the use of the people of Alberta for their benefit, education, and enjoyment, subject to this Act and the regulations, and shall, by the management, conservation, and protection of its natural beauty, be maintained for the enjoyment of future generations.

With these broad objectives of conservation, protection of natural resources and protection of natural beauty indicated, Section 7 of the Act goes on to state that:

Section 7 Nothing in this Act affects the administration and control of mines and minerals within the area of the Park.

Several of the townships at the east end of the Park are currently covered by coal leases and petroleum and natural gas leases.

The apparent conflict between Section 4 and Section 7 of the Act suggests several questions:

1. What is the future of Willmore Wilderness Park?
2. Are industrial processes such as strip mining compatible with the original objectives for establishing the Park?
3. In relation to the above, are there any plans to further reduce the size of Willmore?
4. Have any management plans been drafted for recreation uses within the Park? (i.e. will it retain a wilderness type of status or will it be subdivided to provide lands for a greater variety of recreational uses?)

5. Transportation

Transportation links in the Smoky River basin could not be described as good. The only highway in the area is gravel and runs from Hinton to Grande Cache. The second part of the existing road link from Grande Cache to Grande Prairie is the Muskeg-Goodwin Forestry Trunk Road. The Trunk Road is usually passable, except during the spring months.

The only access to the western part of the basin is via the Two Lakes Road. This is a dry-weather road which is usually open to some traffic in both summer and winter months. A small sawmill at Sherman Meadows is one reason for the maintenance of this road year round.

A dry-weather road also runs south from Grovedale crossing the Cutbank River, to reach Kakwa Tower. This road roughly parallels a new Procter and Gamble haul road which has recently been constructed from their mill on the

Wapiti River south to Kakwa Tower. Procter and Gamble constructed a new right-of-way for most of their road but did upgrade parts of the existing right-of-way. The new haul road has a very high design standard and will provide an all-weather link to the area south of the Cutbank River.

There is one railroad in the Smoky River basin, the Alberta Resources Railroad. From its branch with the Canadian National Railway mainline near Hinton, the ARR follows a route north to Grande Cache. From Grande Cache it follows the Smoky River valley northeast for about 60 miles, then climbs out of the valley in a northerly direction and terminates at Grande Prairie.

The Alberta Resources Railroad was completed in 1969 and has experienced some problems in generating operating revenues.

It seems that parts of the line were poorly located and a piece of the line was washed out during a flood in June of last year. Repairs on the line are due to begin this summer.

There is a gravel airstrip at Grande Cache and several Alberta Forest Service Airstrips in different parts of the Smoky basin.

B. People of the Peace - Their Goals and Objectives

The Peace River region is one of Canada's unique areas. Its original isolated nature gave its inhabitants a great feeling of attachment, identity, and solidarity with the region. There are very few areas in Canada where a person can identify so strongly with so well defined an area. The Peace River country is a region with unique problems and opportunities. So far, the region has managed to maintain its special identity in spite of increasing accessibility to the rest of Alberta.

Apart from farming, the region is heavily dependent on resource extractive industry; oil and gas operations, logging and mining. It has been hypothesized that a resource-frontier region such as the Peace River region represents a transition between small town environments and the more urban environments that exist in the southern half of Alberta.

Very broadly speaking, there are two types of people in the region. There is the stable rural community and small businessman whose parents pioneered the opening of the area and there are the more transient people who come to the frontier region to achieve the money and stability needed to enter the more populous, urban-centered regions in other parts of the country at a later date.

There are three types of communities in the Peace region: service centers, primate centers and new towns. The service centers or small towns form the backbone of the region. Their residents for the most part are locationally stable, but the families in these small towns face a problem common to all rural areas in Canada. They face an out-migration from their community of young people who are attracted to better jobs and the amenity environments found in larger centers.

One of the problems faced by primate centers (Peace River and Grande Prairie) is that they contain large numbers of people who are attached to large

corporate firms and they transfer frequently. Also, these centers contain large numbers of resource workers whose positions are sensitive to world market conditions and resource depletion.

New Towns in the region are also sensitive to world markets and resource depletion. In addition, they contain large numbers of people who are living there for economic reasons and hence intend to leave after acquiring certain sums of money.

Thus, you have a picture of certain people within and without the region being attracted to jobs provided by the resource extractive industries. At the same time, you have an out-migration of young people and the short-term residents who are attracted to better jobs, better facilities (educational, recreational) and the urban amenities found in centers outside the region. What the net effect of these two opposing trends will be, only time will tell.

The Goals and Objectives Study was conducted by the Peace River Regional Planning Commission (PRRPC) in 1971. Nearly 1000 households were sampled through personal interviews in all parts of the region. A response rate of 90 percent was received which attributed to the friendliness of the Peace River people and their interested involvement in regional affairs. The results show a concerned populace throughout the Commission area.

The results of the study show that people in all sized of centers felt that job opportunities for youth were poor. They also felt that, although job opportunities for adults were also poor, they were somewhat better.

A majority felt that social and recreational facilities were poor in New Towns and Service Towns but better in the Primate centers. They felt that parks and playgrounds in New Towns and Service Towns were poor, but good in the Primate centers.

Residents in all sizes of centers rated friendliness in their community as very good.

When questioned on matters pertaining to the physical environment, the results show that the people of the Peace River region are highly environmentally conscious. Over 90 percent of those sampled do not want air or water pollution even if it meant substantial increases in income.

Most people in the region do not favor any further American investment in the region. Although they are concerned about jobs, at the same time they dislike the outflow of corporate profits. Restricting foreign investment is primarily a federal and provincial policy consideration, but in considering goals for the Peace River region with its resource-based economy, this question is of prime importance.

One means of diversifying the economic base of the region may be tourism. Residents of all communities favour tourism very highly as a means of development. In New Towns 83 percent were in favour.

In Alberta's economy, tourism places high as a dollar earner and it is the fastest growing sector. In general terms, for the Peace region, tourism shares equal popularity with industrial expansion as a means of development.

As mentioned, job opportunities is one of the major issues with which the people of the region are concerned. Whether these jobs are to be provided by resource-extractive industries, manufacturing or the service sector of our economy (e.g. tourism) remains to be seen.

We should approach the problem cautiously, however, because creation of new jobs in only the primary sector of the local economy will not necessarily result in the retention of current residents of the region. The young may continue to out-migrate to experience a greater variety of opportunities elsewhere, while entirely new sets of in-migrants will arrive in the region to take advantage of increased employment opportunities.

We should encourage only those industries and businesses to the region which are likely to result in an increase in the number and variety of positions for local residents, as well as for non-local residents. These industries and businesses should leave room for future development opportunities if we are to establish a diversified economic base.

With the goals of environmental quality and increased employment opportunities, the composite objective of regional residents is to attract industries which will not cause detrimental effects to the amenity resources of the region.

## C. Future Development

### 1. Watershed Values

The Peace River Regional Planning Commission believes that above all else, watershed values on the Eastern slopes in terms of both water quantity and water quality, must be the overriding consideration in any aspect of development.

Water is one of the keys to life and supports a diversity of uses unlike any other resource. Water is a necessity of life for both man and animal. It is a necessity for many of our industrial processes. Water is a major attraction for many types of recreation and our river valleys are one of our most important resources in this respect.

As our population grows and our economic base becomes more diverse, the demands for water are increasing also. Southern Alberta for example, is already experiencing problems with water supply. Although such problems do not exist in our region at present we must become very aware of the value of the Smoky River basin as a water producer.

There are currently several government agencies, both federal and provincial, studying the flow of rivers in the Smoky River basin. We encourage such studies and hope that in addition to water quantity, that the studies can be expanded to include water quality. With rapidly increasing developments in the basin, we need to know more, for instance, about the soils over which these waters flow. A detailed soil survey for the area would greatly aid all resource users in the basin in their attempts to minimize soil erosion, one of the main factors influencing water quality. We feel that detailed data and reports on watershed sensitivity are an important prerequisite for planning decisions concerning land use in this and other drainage basins.

In connection with watershed values, and stream courses in particular, we feel that there is urgent need for the adoption of a wild rivers policy. Certain water courses in the region, due to their scenic and recreational values, need to be protected from resource management practices which will impair these values. The attributes of these watercourses are priceless and irreplaceable resources, whose worth is timeless; we must not sacrifice them in the interests of economic activities along their banks whose benefits are by definition, of a short term nature.

We feel we have in our region a great many streams, both accessible and inaccessible, which are currently not under great pressure from resource development. We should act now to preserve them. We should not wait until a watercourse is endangered before trying to protect it. We are also concerned with the carrying capacity of ecosystems which would be included if and when wild rivers are designated. A Wild Rivers Policy would protect some of the more delicate ecosystems as well as those with high amenity value.

At the present, due to the limited number of developments along our rivers, there have been few instances of environmental damage. However, with the major type of economic development in the region, specifically resource extraction, there is reason to be concerned. Water diversion schemes to other river systems; dams for water-injection wells at oil fields; settling ponds at mine sites; these are only a few of the proposals which affect our watercourses as they exist today. When the decisions are made, and the people of the Peace River region most certainly must be consulted, preservation of certain watercourses as wild rivers must be given the same consideration as the use of water for economic development through damming, diversion and withdrawal of water and the return of effluents.

2. Coal Mining

At the outset, we would like to say that the Peace River Regional Planning Commission fully supports the report and recommendations resulting from public hearings in December 1971 and January 1972 concerning the Impact on the Environment of Surface Mining in Alberta.

One of the main concerns brought out at the hearing was the need for more planning in the pre-development stage and careful selection of potential strip mining sites. This would establish a solid starting point for the mining operation and allow for subsequent restoration. Another concern that was voiced was the need to establish operating guidelines prior to commencement of mining so that companies could better assess their chances of success. The importance of protecting water quality was also stressed. Associated with this was a concern to protect scenic sites such as waterfalls and river valleys. The impact, on air and water quality, of coal-powered thermal electric plants was also questioned at the hearings.

In its report, the Environment Conservation Authority concluded that from evidence available, it is doubtful that permanent environmental damage can be avoided in high mountain areas. Restoration would be extremely difficult if not impossible. Doubts were also expressed by the public over the effectiveness of reclamation in the high foothills. The E.C.A. notes in the report that the coal industry itself had expressed doubts that reclamation costs could be kept to a reasonable economic level in areas of steep terrain. With respect to exploration for coal, the Authority concluded that roads and exploration trenches and other off-site developmental activities can be as damaging to the natural landscape as the actual surface coal mining operations.

As a planning organization, we avidly support the Authority's interest in the need for better planning:

"Pre-planning of the mining operation including an environmental impact statement before exploration or extraction begins, must be considered as the most effective measure towards proper site selection. Planning of the total mining operation including reclamation is the critical step in the prevention of deleterious effects of surface disturbance, for remedial measures if damage does occur, and for reduction of expenditures on labour and capital. Planning at this stage should take into account the mining process, post-mining reclamation, abandonment of mining properties and the return of the land to productive use under new management."[1]

From the standpoint of effective long range planning for the Smoky River basin and its coal deposits, we agree with the following recommendations as put forth by the Environment Conservation Authority:[2]

1. Surface Restoration

   (a) In non-agricultural areas, where the original condition cannot be restored, the primary objective of reclamation should be the creation of a new condition of equal or greater value than the original condition.

   (b) Where restoration of the original condition would produce a less valuable result than an alternative new condition, the alternate condition should have priority if the economic balance between the cost of the reclaimed land is favourable.

2. Final Land Use

   (a) Where the value of any site will be permanently and substantially less following mining than it was before this factor should be important in determining whether the mining operation should be allowed on that site.

   (b) The shortest time practicable should elapse between operating a surface mine and reclaiming and revegetating the site prior to abandonment. Normally, this time span should not be permitted to exceed two years.

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1 Environment Conservation Authority, The Impact on the Environment of Surface Mining in Alberta; Report and Recommendations, 1972.

2 Ibid.

3. Protection of Watersheds

(a) Where surface mining operations are undertaken which involve construction, exploration or surface disturbance, all reasonable precautions should be taken to protect watershed values.

(b) Prohibitions against mining in selected sites should be used to protect water falls of great beauty, or to protect sections of streams which might be designated as wild rivers.

(c) Reclamation of roads and trenches must occur in order to minimize erosion.

(d) Facilities should be constructed and located in such fashion so as to minimize air and water pollution.

(e) Emergency structures should be built to prevent watercourse pollution during sudden storms.

(f) Particular care should be taken in the location of thermal-electric plants, in order to minimize air and water pollution.

4. Conflicting Resource Values

(a) Where any resources are identified, but are not to be developed, an assessment should be made of the values of the resources which may be disturbed or destroyed. Where possible, steps should be taken to minimize such losses, to protect the value of the undeveloped resources or to develop them simultaneously or sequentially.

5. Upland Areas

(a) In these areas of sensitive vegetation and steep terrain, performance bonds should be held for companies wishing to mine there.

(b) Before full-scale mining commences at any site, a fully developed reclamation plan should be submitted, which shows in detail, not only the plans for surface restoration and revegetation, but also the areas of temporary spoil storage.

(c) In the pre-planning phase, the impact of a proposed surface mine operation should take into account the effects on tourism and on the recreation potential of the area.

(d) Where conflicts between surface mining and tourism and recreation are irreconcilable, they should be resolved in favour of the larger and longer-lived social and economic benefits, taking into account the measurable

social and economic values for each activity in a region.

(e) Decisions to permit or restrict surface mining on a particular site should be based on comprehensive analysis of social costs and benefits which can be assigned to the individual operation.

The Peace River Regional Planning Commission is involved with land use planning on a regional level. Through the planning process, it is our responsibility to reflect the goals and objectives of the Peace River region and avoid as many potential land use conflicts as possible. We are attempting to accommodate all users of the Smoky River basin. In order to perform this task, the Commission is very interested in examining the long-range development plans of mining companies holding leases in the Smoky basin.

3. Forest Industry

Before comments or recommendations can be made concerning the forest industry and logging practices, we first have to look at the role of the forest[3] itself regarding watershed values. With respect to watersheds and streams, there is universal agreement that forests possess remarkable flow regulating and anti-erosion properties. The rate of infiltration of rainfall into a forest canopy is generally far greater than on grasslands or cultivated lands. In fact, under normal forest topography and for moderate rainfall, surface runoff is the exception rather than the rule, whereas for grasslands and fallow, the opposite is the case.

Another very important function of a forest cover (especially coniferous) during the spring snowmelt is to shade the snow from the sun. This results in a more gradual spring thaw, thus allowing the freed water more time to infiltrate into the ground and preventing the "flash" flooding often associated with snowmelt on open fields.

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[3] EPEC Consulting Limited. The Forest Resource In Alberta Report for Environment Conservation Authority, 1972.

One could expect deforestation to have an important effect upon the magnitude and character of stream flows in an area. Whereas prior to deforestation when most of the spring runoff was of the subsurface variety, a gradual buildup of the flow volumes of a stream to a peak volume, followed by a relatively slow decrease of several months could be expected. After deforestation, one would expect a rapid buildup of the flow volume to a much higher peak followed by a relatively rapid decrease. In other words, a flood-drought situation is created.

Clear cutting usually results in a significant increase in water yield from a given area.[4] Very generally, this is a result of increased snow accumulation on the clear cut areas, reduced interception of rainfall by the forest canopy and a reduction in evapotranspiration.

To help minimize the extremes in flow patterns that can occur following deforestation, there are several precautions[5] that can be taken by the forest industry on a general basis:

1. Keep the clear cut areas relatively small, especially in hilly terrain, so as to prevent surface flows from developing a high velocity.

2. Intersperse the clear cut areas with untouched forest such that any surface flows from the cut areas infiltrate into the soil as they cross the uncut areas.

3. Most of all, keep the total cut area small in comparison with the area of the watershed.

We see that the role of the forest[6] in preventing erosion is two-fold. It allows for efficient infiltration thus minimizing the possibilities of surface runoff, while the duff layer (ground layers) presents a high resistance to erosion for the surface flows which do occur.

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[4] Ibid

5 Ibid

[6] Ibid

Where erosion hazards are concerned the main problem is not the actual clearcutting itself but rather the activities associated with it. Construction of logging roads, skid trails and drainage ditches are activities which disturb the ground cover and expose mineral soils to surface flows. As well, scarification[7] for regeneration of the cut blocks can cause problems if not conducted properly.

Besides the possibilities of erosion on large cut blocks, we are somewhat concerned as to what effects large scale clear cutting will have on wildlife. It seems, however, that the effects on wildlife are as varied as the number of species involved. Where clear cuts are kept to a moderate size, some species such as deer, elk, and moose feed on the open spaces and use the uncut forest for shelter. One species that is adversely affected by clear cutting is caribou. They do not feed on open spaces as they require mature coniferous forest for survival. Also, caribou are especially sensitive to any man-made disturbances. Some of the few remaining winter ranges for Rocky Mountain caribou lie in the Kakwa River valley.

Forestry practices can have both positive and negative effects from a recreational point of view. On the positive side, practices which increase the vigor of a forest by removing undesirable trees or enhance the beauty of a region are beneficial to recreation. On the negative side, if the aesthetic value of an area is marred by clear cutting, recreationists will find their experience much less enjoyable.

In view of the above discussion we see that the forest has several roles to play. The forest is a natural protection for watershed values and it regulates annual streamflows. The forest supports a multitude of wildlife species. Forest lands support most of our outdoor recreation activities.

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7 Scarify: to loosen or stir the topsoil

At the same time, the forest supplies all of our commercial lumber and wood pulp. It is our view that the forest will be able to fulfill all its functions for many decades if proper planning and management are carried out.

We put forth the following recommendations:

1. In areas with high recreation potential, if cutting is allowed, then forest management should enhance rather than detract from the potential of the area.

2. The industry should be more concerned with aesthetics, especially from major highways and lookouts.

The industry should be more sensitive to the detrimental effects of their activities on the aesthetic value of forests, particularly from major highways and lookouts.

3. Around lakes with recreation capability, a controlled buffer, perhaps one mile, should be left. This area should be managed for recreation purposes and certainly should be wider than the existing 330 feet now in effect.

4. In areas of critically important wildlife range, such as caribou range in the Kakwa valley, consultation should be carried out with Fish and Wildlife division to establish the effects of clear cutting on the species involved.

5. Whenever possible, companies with adjoining leases should avoid duplication of haul roads. This would help minimize the number of rights-of-way in an area and reduce erosion hazards. Perhaps haul roads could be built and used on a cost-sharing basis in some areas.

6. In view of the intensifying activity of the forest industry in the Smoky basin, we stress that watershed values must be maintained on clearcuts. Larger clearcuts will require more intensive management to prevent erosion.

7. The Peace River Regional Planning Commission is currently preparing a report on the supply and demand of recreational lands in the Peace River region.

Forested lands and recreational lands are often one and the same. In order to accommodate the needs of the people in the region, we will have to work more closely with the forest industry with respect to the development of these lands. This will require that long range development plans from companies operating in the region be made available to the staff of the Peace River Regional Planning Commission.

4. Oil and Gas Industry

The role of the forest and the value of forested lands have been outlined in the preceding section. As well as the surface resources mentioned, these lands are also underlain by deposits of oil and gas.

We realize the importance of oil and gas as an energy source, but we are concerned with some of the inefficiencies that exist in the exploration and development of this resource. Some of the problems encountered by the forest industry when logging also apply to the petroleum industry when seismic lines are cut and roads are constructed.

We feel that most problems are in hand and it is merely a matter of supervision of exploration and drilling.

We have the following recommendations:

1. Unnecessary duplication of seismic lines and roads should be avoided. It is not efficient from a regional viewpoint. Duplication results in a greater loss of timber, more stream crossings, and a greater potential for erosion.

2. Wellsites should be kept out of the flood plain to avoid contamination of streams. In other areas waste disposal and site revegetation must be maintained.

Where dams for water injection purposes are proposed, they should be very carefully assessed from a cost-benefit point of view. If allowed, it should only be after a detailed environmental impact study has been conducted.

3. In some special areas of steep terrain and sensitive vegetation, seismic operations should be restricted to winter operations only. This would minimize the destruction of ground vegetation and reduce erosion.

4. Where gas has an extremely high sulphur content, we should carefully weigh the revenue benefits of obtaining the gas, against the environmental costs of releasing large quantities of sulphur at the surface.

Where wells are developed and sulphur extraction gas plants are built, emmissions must be frequently monitored both in day and at night and existing regulations strictly enforced.

5. There is a general lack of knowledge about the effects of various gases and effluents upon not only livestock but all members of the biosphere. With more gas plants being built, we feel that research in this field should keep pace with the development and extraction of natural gas.

5. Recreation

Recreation means a great many things to many different people. Activities and interests are as varied as the individuals involved. As a result, we have recreational pressures in this and other regions which are varied in their nature. One trend that is easily definable, however, is the trend towards outdoor recreation. That is, recreation on open land away from the urban scene.

The item that comes to mind when you mention recreation and the outdoors is parks. We should note that there is great variety in the type and size of parks. They vary from picnic grounds on the outskirts of a town, to wilderness landscapes along the continental divide.

Whatever classification of park we care to talk about, however, we must realize that there are limits to the use of these areas if they are to retain their beauty and usefulness. We must think in terms of carrying capacity [8]

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[8] The Conservation Foundation. National Parks for the Future Washington D.C. 1972

for these areas whether their function be Sunday picnics or wilderness hiking.

The simplest meaning of this concept (carrying capacity) is the ability of something to absorb outside influence and still retain its essence. When carrying capacity is exceeded, that essence is lost. The problem is already occurring in some of our parks.

Carrying capacity may be understood to have three parts:[9]

(a) Physical Carrying Capacity: This relates to the effect of visitation on the nonliving aspects of the habitat. The ability of a particular terrain to resist trail erosion is one factor. So is its ability to "absorb" trails, roads, and other man-made objects. Conversely, when man-made features dominate the scene, the physical carrying capacity is exceeded and, in the case of a park, the preservation function aborted. Space also determines carrying capacity, such as in the case of an archaeological site where the number of visitors is limited at any one time.

(b) Ecological Carrying Capacity: This concerns the effect of visitors on park ecosystems. When the natural plant and animal features are substantially altered, ecological carrying capacity is exceeded and the preservation function aborted. The "fishing-out" of a lake or stream is an illustration of exceeding this capacity, as is the effect on flora of pasturing a string of horses on a mountain meadow. The ability to dispose of visitor wastes without damage to park ecosystems may prove to be the ultimate measure of ecological carrying capacity.

(c) Psychological Carrying Capacity: The most subtle and difficult, but in many ways the most important, component of carrying capacity concerns the effect of other visitors on the mind of the individual visitor. The assumption is that a certain atmosphere or setting is necessary in order that certain

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[9] Ibid

attributes of an environment can be perceived and enjoyed. Levels of tolerance for other people vary, of course. At one extreme is the person for whom the sight (and even the knowledge) of one other camper or camping party in the vicinity detracts from the quality of the experience. At the other extreme are those whose chief delight in a park experience comes from association with fellow visitors. For them, an empty campground would not only be a disappointment but a frightening prospect.

With some of the limitations of the natural land base outlined, let us look at some statistics forecasting future recreation pressures. It has been estimated [10] that the number of outdoor recreationists and tourists in Alberta will more than double by 1985 to 4.85 million. The total number of recreation days will more than triple to 134 million. The total recreational expenditures will almost quadruple to $830 million. These statistics, if we can believe that current trends will continue, tell us that there will be significantly increased demands for recreation areas. The Smoky River basin, as yet relatively undeveloped, could play a key role in satisfying a part of these future demands.

With a view to long range regional demand, together with the potential of the Smoky basin, the Peace River Regional Planning Commission makes the following recommendations:

1. We support, in principle, the construction of a highway link between Grande Cache and Grande Prairie. The route of the road should pass through the town of Grande Cache to allow tourist traffic the use of existing facilities. It is hoped that this tourist traffic will help stabilize the economic base of the community. We believe that Grande Cache has a potential to develop as a

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[10] Organization for Economic Co-operation and Development, International Tourism and Tourism Policy in OECD Member Countries, Paris, 1971

major tourist center outside of Jasper National Park.

The road would pass through scenic foothills and mountain country and design standards for the road should take these factors into account. It should be designed as a recreation-oriented roadway.

2. There are two areas in the Smoky River basin which should be considered for Provincial Park status, Musreau Lake and Two Lakes. Both Musreau Lake and Two Lakes have a capability to support family oriented boating. Two other lakes in the Grande Cache vicinity, Grande Cache Lake and Pierre Greys Lakes, have good recreation capabilities and should be preserved for that purpose.

Water bodies such as these are very scarce in the Smoky River basin and need to be carefully managed. Their potential for family recreation is of considerable future importance.

3. The Peace River Regional Planning Commission supports the proposal, in principle, for a Kakwa Falls Wilderness Area. The area should be sufficiently large so as to support a wilderness core surrounded by a restricted development area that would act as a buffer zone. We feel that the buffer zone should have at least some basic facilities such as campshelters so that the area would be better able to accommodate a variety of users.

However, in deciding to have a wilderness area in the Smoky River basin there are a few points we should realize. Wilderness by definition is an area where man's presence is minimized. It is a fact that wilderness can be loved to death. Its worst enemies are its friends. When securing a campsite becomes a competition, the perception of wilderness vanishes.

4. We feel that proposals for commercial tourism and recreation developments should be allowed only in the vicinity of the Grande Cache townsite. We do not wish to establish a precedent that in time might lead to a proliferation of private lodges and hotels along the eastern slopes. Construction of such

Decisions relating to water resources planning have often in the past been made by single purpose agencies. The nearsighted view of the hydro-electric interests or the proponents of water export, must not be permitted to govern the use of the region's water resources, just as the single-minded preservationists view of non-development must not be applied totally. Some type of public agency, perhaps the Environment Conservation Authority, which is capable of taking into account the interests of all users of the Peace River system, whether active or passive, will be required to make recommendations to decision-makers in the best interests of the people of the Peace region.

As most of the Peace River headwaters are in British Columbia, the residents of this region are directly affected by land uses in our neighbouring province. The PRRPC has established and maintained good lines of communication with the planning office of the Peace River - Liard Regional District in Dawson Creek, British Columbia. We intend to continue and perhaps expand our co-operation with their office concerning developments in the Peace River headwaters.

2. The PRRPC suggests that any industry seeking approval for a location adjacent to a regional watercourse prepare comprehensive studies on the assimilative capacity of that watercourse, and on the impact that the use of the watercourse by the industry will have on the ecological stability of the watercourse and on its downstream users. These studies would be submitted both to the PRRPC and the Alberta Department of the Environment. These agencies would jointly discuss approval, refusal, or necessary modifications. The PRRPC would represent regional interests in these discussions.

3. The PRRPC should assist the Department of the Environment and other agencies interested in watershed protection, in determining which regional watersheds require protection, from industrial and recreational activities,

and would regulate land use in watersheds so defined in order to preserve the hydrologic regime and water quality in such watersheds.

4. The Peace River Regional Planning Commission requires improved communications with industrial development bodies such as the Canada Development Corporation, The Department of Regional Economic Expansion, and the Alberta Opportunity Fund. If the PRRPC is to monitor regional goals and objectives and take a responsible position in the planning decisions for the Peace region, then the PRRPC should be consulted when decisions for industrial location are made by bodies from outside the region.

5. Those industries which have located in the region should be required to utilize the most modern methods of pollution control. This would ensure that their adverse effects on the local environment are minimized.

6. Areas which have a good capability and are desirable for recreation should be reserved immediately. If future regional and extra-regional recreation demands are to be met, some of these areas should be acquired by the Provincial Parks Division, in co-operation with the PRRPC. Until further study is completed the PRRPC should approve no subdivisions in these areas.

7. Ecological damage caused by the construction of transportation facilities such as highways, pipelines, seismic lines, must be minimized. Where roads are built in areas of scenic beauty and recreation potential, design standards should take these factors into account. A recreation highway does not require a high speed design standard.

8. No additional New Towns should be constructed in the region. This would eliminate the boom town/ghost town phenomena and the problems of debt associated with the transition from New Town to incorporated status.

9. No commercial or industrial development will be allowed in river valleys. The majority of river valleys will be preserved in their present state. Water

is a priority resource in the region and the river valleys will be one of our main sources of recreational lands.

E. Conclusion

The variety of current uses and the variety of resource capabilities in the Smoky River basin is presenting a serious challenge to land use planners. If the Eastern Slopes are to support a multiplicity of uses including industry, recreation and wilderness, an integrated system of land use zoning is required. To facilitate such a system we definitely need a set of co-ordinated land use policies from the provincial government. Increasing pressure from numerous industrial and recreational interests, together with a need to preserve part of the area, tells us that the final solution will be complex.

One of the keys to solving land use problems on the Eastern Slopes will be the time factor involved in assessing the situation. Will we allow ourselves time to stop and weigh all the positive and negative effects of our decision-making? Or will we be pressured into hasty decisions which may not benefit the province as a whole? There is a need for more time to be spent in all stages of the planning process.

Another key will be better communication both within the government administration and between government and the private sector. When residents of the Peace River region were asked, through our Goals and Objectives Study, whether planning and policy decisions should be left to politicians and civil servants, a large negative response was received. The people in this region are demanding a more direct involvement in the planning process.

Gentlemen, we thank you for this opportunity to contribute to these important public hearings. We hope that our submission will aid you in your efforts to establish land use policies for the Smoky River basin and all the Eastern Slopes.

QUESTIONING BY THE AUTHORITY

MR. KINISKY:

Is agricultural activity declining or going up in the basin section itself? Is there any change or is it pretty stable?

MR. SULLY:

I think it is pretty stable. I think in future it will hold its own. Agricultural lands will be a major resource in this region.

MR. KINISKY:

Food prices are rising, apparently at an astronomical rate. Will additional pressures be placed on those areas of the Smoky drainage basin which can sustain grazing?

MR. SULLY:

Yes, personally I would see those pressures remaining. Whether they will increase or not I don't know. I think they will remain as the price of beef goes up and more people either remain in or get into cattle. I don't know if grazing is a real problem in the Peace region. In the Smoky River basin the only grazing we have is on those lands just south of the marginal farming area down in Grovedale. I think there will be grazing pressures.

MR. KINISKY:

You talk about the preservation of stream banks, particularly in the forest industry, and the preservation of wild rivers. What distances should we leave from stream banks to give them some rational protection, so we don't have the type of problems which have been evident in the past?

MR. SULLY:

We defined that in our preliminary regional plan. For major river valleys it should be the break in the land which would identify a distinct river valley. They should be out of the river valley, on the surrounding area.

MR. KINISKY:

When we talk about wild river preservation we must look to the crest of the stream bank. What do we do in areas where we are cutting pulp, for example?

MR. SULLY:

In the foothills and mountains it's quite a problem to define what the river valley is because it's just one river valley next to another. In those areas we've set limits, expressed in feet, as to how close to rivers industry should be located.

MR. KINISKY:

You showed photographs of timber cutting in the area; apparently block cutting is still going on. It seems to me that I've heard there was going to be more planning towards contour cutting. What is the view of the planning commission on block cutting versus some reasonable kind of contour cutting?

MR. SULLY:

Representatives of Procter and Gamble and foresters with the Alberta Forest Service feel that in pulp leases there will be a trend away from the grid system of block cutting. The cuts will be sloped to the contour to avoid many erosion problems. We think that is probably the most realistic approach.

We are concerned about the scale of operation, the difference in scale between Procter and Gamble and the operators there now. The cut blocks of the present operators are in the neighbourhood of 60 to 80 acres. Procter and Gamble will be clearcutting blocks of 250 to 400 acres, depending on the stand and the terrain. Whether that will be a problem, I don't know, but I think we should keep it in mind.

MR. KINISKY:

Is the potential in the area for sweet or sour gas?

MR. SULLY:

My understanding is that it is sour gas.

MR. KINISKY:

Therefore there must be some processing or cleaning of these gases. Would the planning commission prefer to see gas processing plants established in the gas fields, in the drainage basin, or would you prefer to see a pipeline system so the plants would be in more settled areas?

MR. SULLY:

To be honest, we haven't given that particular problem any consideration.

MR. KINISKY:

You speak of the Kakwa as a wilderness. Do you use the present statutory definition of "wilderness"?

MR. SULLY:

Yes, we feel that the core of the area should be wilderness as it exists under The Wilderness Areas Act.

MR. KINISKY:

What size of buffer zone do you see for the Kakwa?

MR. SULLY:

That would depend. I believe Lands and Forests is doing a biophysical inventory of that area. I believe they started this summer to assess the surface resources of vegetation et cetera. The actual size of the buffer would depend on the findings of its study. We're not recommending X miles or X feet. We're just agreeing with the buffer zone concept.

MR. KINISKY:

There is now a conflict between the preservation of the wilderness and the forest management lease there.

MR. SULLY:

Agreed. The forest management agreement with Procter and Gamble reads that if that area is set aside for any purpose other than pulpwood harvesting, the company must be compensated.

MR. KINISKY:

Your proposed land-use maps show considerable conflict between recreation and the forest management area. You suggested that we reserve those potential recreation areas now, which in fact means that they have to be taken out of the management area completely.

MR. SULLY:

When I mentioned the reservation of areas with recreational capabilities, I was talking about the whole Peace River region and the Smoky River basin, including settled areas. There are so few small lakes in the Smoky River basin that their recreational value should be the overriding consideration. They should be designated with a controlled buffer around them; we suggest one mile.

MR. KINISKY:

I don't like to use the term "Willmore Wilderness" because it is not wilderness at all. However, are you thinking of the Willmore in terms of the wildland concept as presented by the Alberta Wilderness Association, or as a wilderness under the statutory definition?

MR. SULLY:

I think probably a little of both.

This is a personal observation. I would like to see half of it designated under The Wilderness Areas Act. The other half should be some type of wildland area, with restricted status, to be used for recreational purposes.

MR. KINISKY:

You mean that some of the very special ecological systems there should be retained as true wilderness and that we should go to the wildland concept for the remainder.

MR. SULLY:

We'd like to see, perhaps some time in the future, a few of the eastern townships opened to vehicle traffic.

We're talking to individuals and find that every individual has a personal type of recreation. Some people like to walk 20, 30, 40 or 50 miles - that's fine. But Mom and the kids and the dog have a certain right to some of these areas as well. We feel that if a controlled type of transportation corridor was put in - and I mean very controlled, perhaps a couple of buses per day - some of those eastern townships could be used for day use, for short hikes, just to get out into the wildlands.

MR. KINISKY:

Could you send us a copy of your study on goals and objectives for the people of the Peace?

MR. SULLY:

We have four studies and we'd be very happy to send you copies.

MR. DOWLING:

Is this a staff paper for the regional planning commission, or one which represents the opinion of all the members of the commission?

MR. SULLY:

This paper is a submission to the Authority on behalf of the Peace River Regional Planning Commission. It was drafted by the staff. It was presented to members of the commission and adopted as a commission policy paper. So it's a representation of opinion from all the residents of the Peace River region.

MR. DOWLING:

How many members are there on the commission?

MR. SULLY:

Thirty-six.

MR. DOWLING:

With respect to the Smoky River drainage basin, are you facing any environmental control problems at present?

MR. SULLY:

No. We don't feel that we have that many ecological disasters or problems. With the pressures on the area with respect to pulpwood harvesting and logging - there are nine coal companies holding coal leases - we feel that we're looking more at future than present problems. We're just trying to make the Authority aware of what some of these problems are.

MR. DOWLING:

Do you see any need for irrigation control structures in this particular region?

MR. SULLY:

I don't see any need in the immediate future. I may stand corrected.

MR. DOWLING:

The problem may arise...

MR. SULLY:

The last couple of years we have been getting just about all the rain we can handle.

MR. DOWLING:

You speak of having good relationships and communication with the planning district immediately west of you in British Columbia - the Liard River, was it?

MR. SULLY:

Peace River-Liard Regional District, yes.

MR. DOWLING:

What degree of communication do you have in this province with other government departments and agencies whose activities might affect your planning work?

MR. SULLY:

We feel we have very good communication with some departments. Several appointed government officials from Lands and Forests, Municipal Affairs, the Department of Education and the Highways Department sit and vote on the commission. We have good communication with those departments. But we feel there is room for improvement, especially with those departments which control industrial location and grants to industry for location. We don't feel we have the right to veto or approve any one location, but we would like to be consulted about locations.

MR. DOWLING:

You've demonstrated a need for better communication. How can we improve the situation?

MR. SULLY:

I don't know. Expansion has occurred recently in the provincial Department of the Environment. It has created a planning division with Henry Thiessen as the coordinator. Perhaps through that department we could get better coordination with other departments. As you say, we've identified what we feel is the problem.

While it's easy to complain, part of the impetus must come from us. We've approached several government bodies and suggested that in future we would like more consideration of our opinion, and right now it is in the preliminary stages. I don't know if we really need an authority or someone to regulate.

MR. DOWLING:

You make the recommendation that there be no new towns in this particular planning area. Obviously there must be some sort of time limitation attached to such a recommendation. Have you conceived of a time frame for your recommendations?

MR. SULLY:

We don't have a date in mind. We are thinking of permanent new towns such as Grande Cache, a town that is developed on a depletable resource, a resource subject to external markets. We feel that if a resource like that is developed then the housing or town involved should be of a temporary nature, at least in the initial development stages. If things prove out and it looks like things are going to work, fine, then go to a more permanent basis. But we feel we should

take a little more time before we establish a permanent urban centre such as Grande Cache.

MR. DOWLING:

What sort of initial problems do you face in making a regional plan?

MR. SULLY:

The Planning Act generally defines considerations which must go into a plan, social considerations, economics, et cetera. You cover almost the whole spectrum of our society as it exists today. We deal with it at a certain level of detail.

In this plan we don't propose a detailed land-use map or a detailed future land-use map. We are trying to establish policies and land-use guidelines. This requires a certain number of staff and background studies. With background studies there is always the problem of time since they take several years of research and then you have to synthesize that research. That is the stage we're at now. We have a preliminary regional plan.

Now we must go to the people of the region. We've established what we think is a precedent in Alberta for public participation. We've approached every municipality and we intend to approach every interest group in the region. Staff members will present the preliminary regional plan to them and explain its contents and aims. Throughout the fall and maybe into the spring of 1974 we intend to set up seminars with elected officials, MLAs, everyone we can get our hands on, in order to get their opinions and as much feedback as possible on this planning document and the planning process itself. When we have all that data we will draft a regional plan which will be a semi-final document. That document must be approved by a two-thirds majority vote of the commission members. Once it is adopted all government departments and agencies operating in the region are required - in The Planning Act I think it says they shall follow the plan. I'm not sure if that means "will" or "shall".

MR. DOWLING:

Where are your major difficulties in actually executing a regional plan?

MR. SULLY:

I would think in the vested interests of departments as they exist today. Government departments such as Highways, Mines and Minerals, et cetera have expertise in a great many areas. The commission does not intend to be expert on petroleum, logging or construction of highways. But we feel that the plan reflects the goals and objectives of the people of this region as best we can identify them. We feel that other departments should be adapting their policies to what we feel the area wants, rather than telling us what the policies are.

You can think of three levels of planning in the province. One, at the very general level, perhaps the cabinet or the Legislature, is called macro-planning. Then there is the planning process, which is micro-planning, management plans, specific land-use plans and urban design. I think the planning commission is halfway between the two.

Our commission area is 87,000 square miles so there is a limit on how much detail we can go into.

MR. DOWLING:

In your conclusion you referred to your goals and objectives study. Apparently you asked residents of the region whether planning and policy decisions should be left to politicans and civil servants, and there was a large negative response. What alternatives do the residents of the region want?

MR. SULLY:

You shouldn't put too much emphasis on the negative aspect. They just want a safe period. They don't want to be isolated from the decision-making. We found that people, as interest groups rather than individuals, want to have some type of say either through these hearings or in the participation program we established for the plan. We have taken the plan out to certain councils. There is a lot of work to do yet, but the response we received today was quite favourable. People are interested in it, at least parts of it. We cover agriculture, oil and timber. It's hard to get a farmer from Hines Creek fired up about the oil industry, but he's interested in agriculture and the agricultural policies we are proposing. So if we can get him involved in his particular interest we have accomplished something.

MR. DOWLING:

Do you feel that public hearings are useful and would fill the needs of the residents?

MR. SULLY:

I don't think a hearing such as this would satisfy their total need. Both you and I know some of the problems. It's hard to move John off his butt and out to the public hearings where he can get involved. But I feel that the public hearing route is good. It has a role in our decision-making because even though the Authority is often accused of listening only to interest groups and lobbies, I feel that through those lobbies and interest groups a large number of people voice their opinions. They may not get up as individuals, but they are talking to the president of their society or what have you. Those are the groups you hear from most in public hearings.

This is what we are doing in the regional planning process. We feel that it's fine to call a hearing and take whoever comes, but we are a bit afraid that we might miss somebody. So we have taken the initiative. We are going out to each council. When people see that you are interested enough to go to those lengths, it creates an interest in them as well. Through this series of seminars I hope we get as much feedback as possible.

DR. TROST:

You mentioned wellsites and recommended that they should not be located in flood plains. Are there in fact any sites located in flood plains?

MR. SULLY:

I couldn't name any specific site in the Smoky River basin, but I know from discussions with land-use officers in the forest service and various field staff that a lot of wells tend to be located wherever the geologist thinks best. However, if that's going to cause serious damage to a stream course, maybe we should take a second look at it.

I would say, yes there are, and a land-use officer would be able to show you examples.

DR. TROST:

Are they recent ones?

MR. SULLY:

I couldn't answer that.

DR. TROST:

You mentioned that new industries are needed for a variety of reasons, but you think they should be certain kinds of industries. Do you have any in mind?

MR. SULLY:

This is a problem not only in the Peace River region but in western Canada. To date, western Canada has more or less been a resource source for manufacturing industries and secondary industries focussed in eastern Canada. You have a rural to urban shift all through North America and with a region as sparsely populated as the Peace River region it's a definite problem. To retain current residents or attract new residents we will have to go into more processing of the natural products of this region. I'm not sure if that would be rapeseed plants or alfalfa plants or lumber mills, but there is a need for it.

DR. TROST:

Does the planning commission wish to play a role in developing and selecting the kinds of industries that might be located here?

MR. SULLY:

I don't think we would like to offer a list to any group or department as to what we would like to see here. But if representatives of an industry interested in locating here came to the commission and talked to us we could tell them what some of the specific problems are in the area. We have done an economic base study for the area which indicates where capital comes from, which way it's flowing and how much is remaining and what the potential market is in the region. We have a certain amount of expertise in that area and it could be used to a greater degree than it has been to date.

DR. TROST:

Are you preparing or promoting a select list of industries?

MR. SULLY:

No, we are not preparing an overall plan for secondary industries in the Peace River region.

DR. TROST:

Have you any comments on the Alberta Resources Railway?

MR. SULLY:

No.

DR. TROST:

Planning in the province is at the municipal, regional and provincial levels. Do you feel these three levels are satisfactory in principle?

MR. SULLY:

Now that the planning organizations in the province have been established, I think it's just a matter of getting together on the overall picture. People who are doing management planning should perhaps discuss some of their problems and concerns with us and we can give them some of our ideas on a regional basis. When they have our regional concerns and regional goals and objectives in their pocket then they can go ahead with their management plans.

DR. TROST:

The roles of these three levels are described in writing. Are those descriptions adequate?

MR. SULLY:

Not the way I perceive them.I'm not sure they have been laid down. Each department in the government has its own planning section. From my experience with a government department, I know that rather than having specifics laid down for them these sectors are going through an evolutionary stage. Perhaps there is a need for a conservation and utilization committee to specify responsibilities for these different sectors. There seems to be some confusion and overlap to date, and in terms of efficiency in the province and the region that's not good.

DR. TROST:

Do you feel that the role of the regional planning commissions as described in writing is adequate?

MR. SULLY:

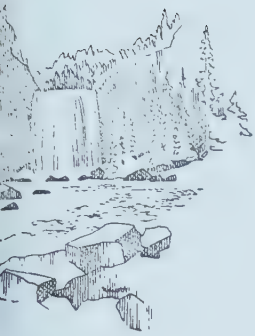
Very broadly I would say yes. The Planning Act is currently being rewritten and I will have to wait for the new act to answer that.

DR. TROST:

Do you feel new legislation is needed?

MR. SULLY:

No. I don't think there's any great need for broad, sweeping new legislation as far as the regional planning commissions are concerned. But there are minor problems where there is need for improvement.



1093-1

# WILD KAKWA

P. O. Box 212

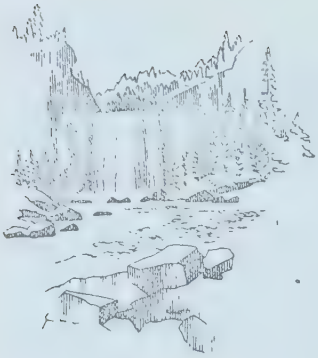
Grande Prairie, Alberta

A SUBMISSION TO THE ENVIRONMENT CONSERVATION AUTHORITY
FOR
THE ESTABLISHMENT OF A WILDERNESS AREA AND A
RESTRICTED DEVELOPMENT AREA IN THE KAKWA FALLS
REGION OF WEST/CENTRAL ALBERTA

July, 1973

Presented by: G. Aalborg
C. Ross
J. Brackenbury

Alberta's Future - A Society
ieated to Saving Wilderness in the Peace



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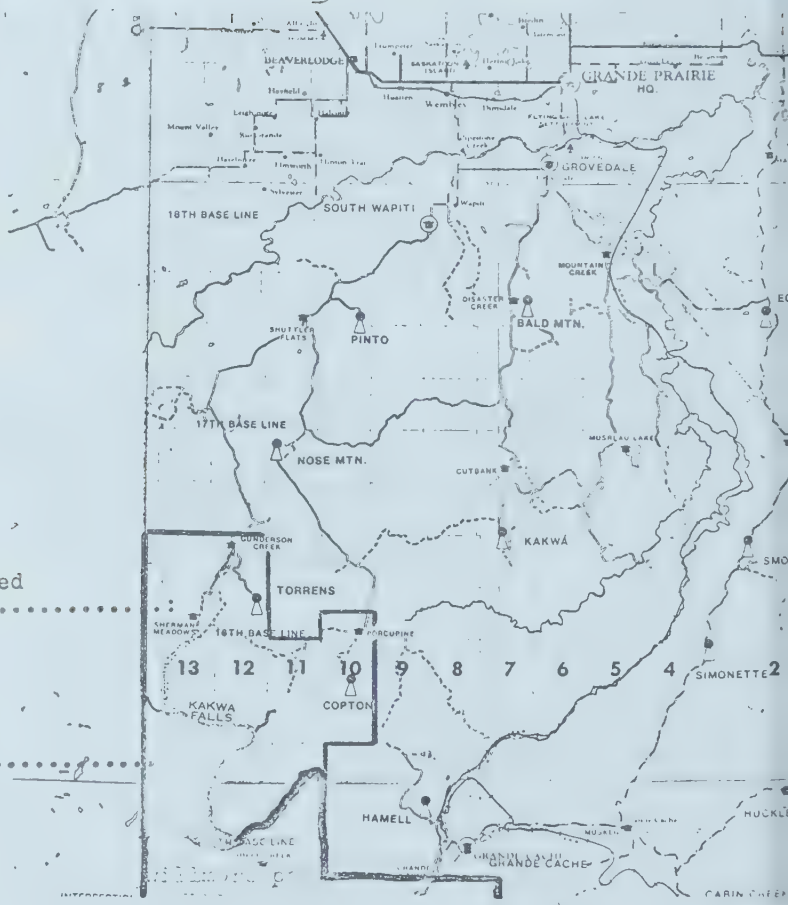


Proposed Restricted Development Area.....

Proposed KAKWA WILDERNESS AREA .....

*For Alberta's Future - A Society Dedicated to Saving Wilderness in the Peace*

PROLOGUE AND HISTORY

Wild Kakwa has been struggling for its cause for two and a half years. We will begin by reviewing some of that history.

We appear today at this hearing cloaked in scepticism and with only token faith that this might be anything but a further exercise in futility.

We have good cause for our doubts. During a two and a half year history of negotiations and discussions with this Authority and the various Ministers of the Environment and Lands and Forests, we have seen no indication of a sincere attempt by government to deal realistically with the issues of environmental protection in the Kakwa area.

In early 1971, after this society asked this Authority for aid in establishing wilderness area protection for the Kakwa Falls region, the government of the day responded by granting wholesale coal and petroleum leases blanketing the area of concern.

And when we met with Environment Minister William Yurko and Lands and Forests Minister Allan Warrack in December of that year, all they could do was blame the problem on the former government and ask with righteous piety for proof of support for our proposals.

So we gathered the proof, in letters and petitions showing support from more than 10,000 Albertans. A waste of time, since the government promptly chose to ignore the proof or take any significant action.

A resource allocation study was launched, in an obvious attempt to stall further discussions. Then these hearings were slated, and again we were asked to wait.

The government has used these hearings as a vehicle for stalling attempts by this conservation group and any other seeking to slow the wholesale rate of industrial development in Alberta's scenic areas.

In October of last year, when a special cabinet committee toured the Peace country, we specifically asked that further development of coal leases in the Kakwa region be halted until these hearings had been completed and evaluated. Again, a totally wasted gesture. Obviously the government has decided it must put the needs of industry ahead of the wishes of the public.

When McIntyre Porcupine decided it must expand strip mining operations at Grande Cache, that company was not asked to wait for these hearings. Indeed, special and preferential treatment was provided to ensure the company would not be inconvenienced by having to wait for the Eastern Slopes hearings. And of course the application was approved, but was there ever any question of that?

It is our great fear that these hearings really have no relevance, except perhaps to ensure the government doesn't overlook some tiny pocket of resources that could be sold or given away in still another attempt to justify a white-elephant railway.

It has been our experience thus far that the Environment Conservation Authority is not, in fact an authority at all, but rather a public relations department charged with justifying the decisions of government, regardless of their validity.

The significance of these hearings is open to serious question as a result of the Grande Cache decision earlier this year. Wild Kakwa is not alone in being sceptical; other groups also have voiced concern.

And we have yet to hear anything from Mr. Yurko or Mr. Warrack that would indicate our fears are groundless. The suggestion has been made, albeit somewhat tongue-in-cheek, that maybe we should incorporate in the United States.

It is interesting to note that Procter and Gamble Ltd., in a truly magnanimous gesture, has relinquished a whole four square miles of

their vast holdings to help in protecting the Kakwa Falls. Surely the government of Alberta could manage a more significant contribution toward the salvation of the province's most northerly scenic wilderness.

The members of Kakwa voted to boycott these hearings, but after a special request from one of your members, reconsidered its position and decided to make one final effort to convince you and your government that our case is the right one.

## THE KAKWA REGION: AN OVERVIEW OF LAND USES

We shall begin our presentation with a general description of the natural values of the Kakwa region and how these values are likely to be affected by industrial and commercial development.

The Kakwa forms the most northerly portion of the Rocky Mountain Chain within Alberta. Above all, it is beautiful country. Between the mountains in the south-west corner and the softer rounded hills of the northern and eastern sections lie narrow, forested valleys and uplands of alpine meadows. The Kakwa, Torrens, and Narraway Rivers, fed by clear mountain streams alive with fish, push downwards through this varied landscape, itself full of wildlife both large and small. And at the heart lies Kakwa Falls, supreme symbol of the wild beauty of the whole region.

The area is an excellent watershed, with countless feeder streams falling from the highlands, especially in the southwest corner. The Kakwa rivers and their headwaters within the proposed Wilderness Area are significant sources of fresh, pure water for the Smoky River and ultimately the Peace River. The Torrens and the Narraway Rivers are important tributaries of the Wapiti, the protection of which is vital to the supply of pure water for the City of Grande Prairie.

The original headwaters of these rivers lie across the provincial border in British Columbia. No official hydrological study of the whole Smoky River basin has been published yet so it is impossible to be definite, but the role of the Kakwa region in preserving the quality and regulating the flow of these rivers must be very important indeed.

The Kakwa region is rich in wildlife. Dolly Varden, Char, Arctic Grayling, and Rocky Mountain Whitefish inhabit most streams and rivers. All require pure, clear water for survival. Marmots colonize Hat Mountain. In the woods and uplands moose, elk, deer, caribou, black and grizzly bear, mountain sheep, and mountain goats can all be found. Proven key winter ranges for Bighorn Sheep and Rocky Mountain Caribou, among the last available retreats for these species in Alberta, are to be found throughout the area.

An existing beauty, then, is the keynote. It is a beauty that appeals not only because of the form of the land itself, but because that land is alive. The knowledge of a continually existent rich animal life, sustained by clear flowing streams, in quiet possession of their natural realm is a higher and more satisfying perception of wilderness beauty than just attractive topography. All this, however is in jeopardy because this same area contains the potential for coal mining, oil and gas extraction, and a forest industry.

There are large reserves of bituminous coal in the south and southeast of the Kakwa area and exploration leases with a view to future strip-mining have been taken out. However, strip-mining in such highland country would have disasterous effects. In its own report on the Impact on the Environment of Surface Mining in Alberta, the Environment Conservation Authority concluded that from evidence available, it was doubtful whether environmental damage could be avoided in high mountain areas. Restoration would be extremely difficult, if not impossible.

It is doubtful whether the situation in areas of high foothills would be very much different. In addition, with respect to exploration for coal, the Authority concluded that roads and exploratory trenches and other off-site developmental activities could be as damaging to the natural landscape as the actual surface coal mining operations. The evidence from coal exploration work done on Coal Ridge and Horn Ridge within the proposed protected area support that conclusion.

Oil and gas exploration leases can have a similarly harmful effect since these operations also require roads and though they do not scar the land-face with trenches the cutting of seismic lines through the forest cover is often necessary.

The impact of a forest harvesting industry on the area is best assessed by recognizing the role the forest plays in maintaining the region's ecology. The report to the E.C.A. in 1972 by EPEC Consultants emphasized the value of forest cover for controlling the flow of water over the land during heavy and sustained rainfall and during spring thaw. Clearcutting greatly increases the flow of water over the ground, thus greatly increasing erosion and siltation. Harm done increases rapidly the larger the size of the clear-cut, the steeper the slope, and the nearer a stream or river.

These claims have been documented by other sources as well:

> "Clearcutting causes the highest degree of surface disturbance. Generally speaking, increasing the size of clear-cut blocks and shortening the cutting cycle will increase the potential for watershed damage, concentrating the disturbance in area and time and increasing the impact on watershed values. Furthermore, large cut blocks may create habitats that are difficult to revegetate therely extending the recovery period."[1]

Another publication by the Northern Forest Research Center in 1971[2] confirmed these findings and pointed out the serious problems associated

1 - Rothwell, Watershed Management Guidelines for Logging and Road Construction, C.F.A., Edmonton, April, 1971, p.7.
2 - Some Implications of Large Scale Clearcutting in Alberta, N.F.R.C., Edmonton, September, 1971, pp 67-68

with road and skid trail construction:

> "(Large Scale)[3] clearcutting accelerates soil and streambank erosion and increases stream sediment. Soil erosion results from the puddling of soil, through raindrop impact, which renders the soil less permeable and facilitates overland flow. Increases in streambank erosion and channel degradation can be caused by increased flows following clearcutting. It has been shown that improper road construction contributes far more sediment to streams than does logging alone. Sediment in streams has adverse effects on fish habitat and on downstream structures. Logging on steep slopes increases the hazard of mass-wasting processes such as landslides, debris avalanches, earthflows, mudflows, sheet floods, and slope wash.••• Increased flows resulting from clear cutting can lead to increased flood hazard. Significant changes in water temperature follow removal of stream side vegetation, maximum temperatures becoming higher and the minimum temperatures lower. This affects biological activity and fish populations in streams. Bacterial decomposition of logging residues in streams depletes the water's dissolved oxygen.••• The effects of clearcutting lodgepole pine will last for thirty or more years. Therefore consideration must be given to water requirements for the year 2000."

The only other comment we would add here is the obvious one that skidding and erosion damage is much more serious under summer operations than winter.

And it is not only watershed values and fish life that are affected by such operations. Animal wildlife also suffers. Despite the oft-stated argument by the forest industry that clearcutting provides fresh new growth for wildlife to browse on, it must be recognized that this would not apply to those species, especially the large caribou population in the Kakwa area, which prefer to winter in old, overmature spruce and live on the high protein lichen and mosses which would be lost by clearcutting. Last of all clearcutting, especially when carried out on hillsides which can be viewed from the main tourist route, is unsightly.

The recreation values of the Kakwa region rival those of the mountain national parks and it is the only area of relatively unspoiled mountain scenery reasonably accessible to the residents of the Peace country

3 - defined as exceeding 20 acres with a maximum width of four times the stand height.

and northern Alberta. Several waterfalls, chief among them being the upper falls on the Kakwa, are within a few minutes walk of the road. Fishing is excellent in the myriad streams and rivers, as too is hunting. Existing roads provide access to areas for hiking, mountain climbing, and nature study groups. The archaeologist might wish to visit the unique Indian gravesites at Porcupine Crossing, and in the meadow to the east the lightfooted observer might catch a glimpse of some wild horses or a pair of wolves which produces a litter every year. It is also interesting to note the cabins of Sherman, the original federal ranger who gave his name to Sherman Meadows, and Gunderson, a hermit on Hat Mountain who named Gunderson Creek, still exist and might be worth preserving. All these things indicate a great potential for extensive recreation use.

The potential for a wide variety of recreation activities within the proposed protected areas is thus very high. It offers rich opportunities for extensive recreation: viewing and nature study, hiking and trail riding, camping and canoeing, hunting and fishing. However, as was emphasized in the EPEC report, intensive recreation use, involving large numbers of people in the same place, would create serious conflicts with the watershed and wildlife habitat. This would certainly result from the proposed resort at Torrens. In fact, we suggest that any large-scale settlement <u>within</u> the proposed protected areas be prohibited. At the moment there are no permanent settlements within the areas. The pattern of settlement is around the edges of the whole Smoky basin, with two main concentrations of population on this perimeter, Grande Prairie and Grande Cache. We feel that this pattern should be maintained. We support the Peace River Regional Planning Commission's proposal that any intensive recreation proposals involving permanent facilities should take place in the Grande Cache area. Intensive recreation use within the proposed protected areas is potentially as disruptive as industrial activity.

We also strongly endorse the Commission's work with the Planning office of the Peace River - Liard Regional District in Dawson Creek in trying to protect the original headwaters of these rivers in British Columbia.

That concludes this section, intended as a general review of the outstanding benefits of the areas proposed for protection in their present natural state; varied and beautiful topography, vital watersheds, abundant fish and animal life all adding up to great opportunities for extensive recreation use. The potential developments that would erode these qualities, perhaps irreversibly, are exploration for and extraction of coal, gas and oil, large scale clearcutting forest operations, and intensive recreation use.

## LAND USE AND RESOURCE POTENTIAL OF THE KAKWA REGION: A DETAILED EXAMINATION OF ALTERNATIVES

The data used for this land use and resource capability comparison in the designated Kakwa area was derived from detailed computer maps compiled by the Planning Section of the Alberta Forest Service through the Foothills Resource Allocation Study. The study evaluated each quarter-section within the area and identified the best potential use for that quarter section, the quality of that use, as well as conflicting and complimentary uses and their qualities.

The initial research for each potential use was derived from the following sources:

| | |
|---|---|
| Forestry | - Canada Land Inventory (C.L.I.), and Alberta Forest Service (A.F.S.) |
| Recreation | - Canada Land Inventory |
| Ungulates | - Canada Land Inventory |
| Key Winter Range for Ungulates | - Fish and Wildlife, fieldwork done by a wildlife biologist. |
| Sport-Fishing | - Fish and Wildlife, through field work done by a fisheries biologist. |
| Watershed | - Alberta Forest Service, through field work done by a hydrologist. |

Coal - Research Council of Alberta

Petroleum - Energy Resources Conservation Board

It should be noted that petroleum, agriculture, and other unlisted resource potentials will be excluded from the discussion because nowhere within the proposed protected Kakwa area do they have other than a poor potential rating.

Before proceeding with the detailed analysis, we should make a few comments about each of the relevent potential land uses within the region.

Forest harvesting must be considered carefully since the entire area is covered by a Forest Management Agreement with the Procter and Gamble Company, and portions of it by timber permits and quotas. We have already made several comments about the effects of large scale clearcutting, skidding, and roadwork on the environment, but would like to add the reminder that when forest harvesting is permitted, it should be on a permanent, sustained yield basis.

Our examination of forest cover maps (1"/1 mile) prepared by the Department of Lands and Forests concludes that approximately two-thirds of the proposed protected Kakwa area is not suitable for harvesting on a sustained yield basis. Most of this area is either above the tree line, stunted due to elevation, brushland, meadow, or rated as a poor forest site. It is a slow growth area, and we find it rather difficult to accept the public claim by Procter and Gamble that this area contains 25% of all merchantible timber within their entire forest management area.

The analysis of forest potential for the Foothills Resource Allocation Study designates the forest quality as no better than moderate throughout the entire area.

Recreation potential also requires some comment. In this paper, we distinguish between two very different types of recreation. Extensive recreation includes those activities which will distribute people through-

out an area on a small scale, temporary basis. Several examples were listed in the previous section.

Intensive recreation includes concentrations of people in permanent locations. This would include such things as the Torrens River Resort proposal. The environmental impact of such intrusions on the natural landscape has been well documented in the past and requires no further comment here.

Ungulates are large, cloven-hoofed game who inhabit the entire area. Proven key winter range for ungulates designates those few remaining areas in Alberta suitable for winter range due to a combination of snow shadow, slope and aspect, and high protein food supply. Such areas are vital to the preservation of Rocky Mountain Caribou and Bighorn Sheep in the Kakwa area. And although forest harvesting can help to open up such areas, large block clear cuts are no more useful than smaller areas, and further, climax species such as caribou are easily frightened by the human activities associated with harvesting.

The excellent watershed ratings of the Kakwa represent a combination of rugged mountain peaks, year-round snow pack, high conversion of precipitation into stream flow, weak bank stability, and the generally fragile nature of this ecosystem which ultimately supplies fresh water to Grande Prairie and contributes significantly to the Smoky River.

The following discussion is in two main sections, dealing first with the proposed Kakwa Wilderness and then with the proposed "restricted development area."

## "KAKWA WILDERNESS"

The proposed Kakwa Wilderness is an area of approximately 100 square miles. It is bounded on the south by the Willmore Wilderness Park; on the west by the Alberta-British Columbia border; on the north by Kakwa River and on the east by the South Kakwa River headwaters. It contains three major mountain peaks: Kakwa Mountain, LaCreche Mountain and

Mount May. The majority of the region is above the 5,000 foot level and is extremely rugged in terrain.

Vehicle access to this scenic region is virtually non-existent since the removal of a temporary bridge upstream from the Kakwa Falls. Exploration for mineral resources has been limited by the terrain and the region is relatively unscarred by roads or seismic lines. An extension of the Two Lakes forestry road terminates at the Kakwa river upstream from the Upper FAlls. Old Indian pack trails parallel the Kakwa and South Kakwa river outside the boundaries of the proposed wilderness area. We believe that this lack of access by vehicles would greatly help enforcement of the Act's regulations for protection from motor vehicle violations. On the other hand, the existing road makes it possible for visitors to drive right to the edge of a wilderness area without damaging the environment they have come to admire.

Existing dispositions include forest leases over the whole area, petroleum and gas leases over approximately 40 sections, with coal leases in just over 20 sections. Four and a half square miles around the Kakwa Falls have been set aside as a recreation reserve.

In terms of best land use, the Foothills Resource Allocation Study (F.R.A.S.) designates 50% of the area as excellent watershed, 14.5% as excellent and high ungulate range, 8% as high sport-fishing, 6% proven key winter range and 1½% extensive recreation. The 15% moderate forest potential conflicts with watershed and sport-fishing, and the 6% moderate coal potential lies on the ridge between Francis Peak Creek and the Kakwa Falls. The ruggedness of the terrain would make any development of coal or petroleum resources difficult, if not impossible, without severe environmental damage in the form of watershed destruction, erosion problems and wild-life disturbance.

Clearly the proposed Kakwa Wilderness is the most significant watershed in the entire area examined. Its undisturbed nature and inaccessibility obviously justify our proposal for a natural wilderness designation.

It is therefore our specific recommendation that action be taken under the Wilderness Areas Act to designate the Area as we have defined it as the "Kakwa Wilderness". We further recommend that advantage be taken of section 6 (4) of the Forest Management Agreement with Procter and Gamble to withdraw this area and replace it with an equivalent area east of the Smoky River. All existing coal and petroleum leases should be cancelled.

KAKWA RESTRICTED DEVELOPMENT AREA

We would now like to take you on a tour of the restricted development area, giving a detailed examination of existing dispositions and potential best uses for each sub-region as we travel from Two Lakes in the north to Kakwa Falls, thence downstream to Copton Ridge and the Porcupine Crossing.

Two Lakes West - 62(12,13,14)

The Two Lakes road extends past Two Lakes with Hat Mountain off to the east, and with the junction of the Torrens and Narraway rivers to the west. Existing dispositions include a recreation reserve of 3840 acres around Two Lakes, several abandoned and suspended oil wells, at least twelve existing oil wells, a forestry camp site, Applications for Licence of Occupation (applications for road rights of way leases) in three sections, Crown Reserve Drilling Reservations (CRDR) in twelve sections as well as forestry, coal and petroleum leases throughout.

In terms of best land use, F.R.A.S. designates 30% of this area as proven key winter range for Rocky Mountain Caribou, 8% for high quality sport-fishing, 18% as excellent and high ungulate range, and 10% as high recreation. The moderate forest potential in this area generally conflicts with the watershed and sport-fishing values of Two Lakes, the Torrens

River and the Narraway River.

Torrens Mountain East - 61(12,13,14)

The Two Lakes road continues through this area with Mount Torrens (7239') and the headwaters of the Torrens River to the west and Hat Mountain to the east. Existing dispositions include a forestry cabin, a lookout tower on Hat Mountain, an airstrip, several road applications, abandoned wells in nine sections, a licenced timber berth in nine sections, one miscellaneous permit, forest, coal and petroleum leases, plus, of course, the Torrens River Resort proposal.

In terms of best land use F.R.A.S. designates 30% of the area as watershed, 13% as excellent ungulate range plus an additional 33% as moderate to high ungulate range, 6% as key proven winter range, 5% as high recreation, and 4% as sport-fishing. The moderate forest potential along the Torrens River conflicts with watershed, sport-fishing and intensive recreation. Further, it is our view that the Torrens River Resort proposal before you would represent a severe conflict with the key winter range to the north-east, the excellent ungulate range to the east, and watershed and sport-fishing values of the Torrens.

Horn Ridge (7052') and Coal Ridge (7002') - 60(14)

Horn Ridge has been the scene of considerable coal exploration activity with a large network of roads scoring its surface. It is also covered by forest and petroleum leases.

In terms of best land use F.R.A.S. designates 75% of this small area as excellent watershed serving Torrens River, Stinking Creek, and the Kakwa River. In addition 8% is proven key winter range, 13% is excellent ungulate range, and 3% sport-fishing. It is interesting to note that in spite of the extensive coal exploration activity the moderate coal potential does not receive the highest value anywhere and receives a secondary score in ten quarters, always in conflict with watershed and key winter range.

Sulphur Range (peak 7265') - 60(12,13)

This area includes the headwaters of Lynx Creek, Lick Creek, Stinking Creek and over 25 intermittent tributaries. Existing dispositions include a gas well, an abandoned well, a licenced timber berth in two sections, several road applications, and the usual forest, petroleum and coal leases.

In terms of best uses F.R.A.S. designates 55% as watershed, 18% as proven key winter range for Bighorn Sheep, 8% high recreation, 8% excellent ungulate range, 1.5% sport-fishing, and 9% moderate forest potential in conflict with watershed.

Kakwa River - 59(12,13,14)

This area extends from the provincial border past the Upper Falls to the Lower Falls and the junction with the South Kakwa. Existing dispositions include a recreation reserve around the Upper FAlls, numerous road applications, one Licence of Occupation, a gas well, and forest, petroleum and coal leases.

In terms of best land uses F.R.A.S. designates 60% of this area as high ungulate range, 25% as proven key winter range, 7½% as excellent watershed, 6½% for high sport-fishing, 0.5% for intensive recreation. Our earlier comments about intensive recreation would apply here as well in terms of the conflicts generated and the damage to the micro-environment resulting from concentrations of people.

Kakwa River North - 59(11, 60(11)

This area includes Copton Creek and Kakwa River and extends to Copton Ridge. Existing Dispositions include forest, petroleum and coal leases.

In terms of best use, F.R.A.S. designates 36% as excellent ungulate range, another ~~28~~ 27% as high ungulate range, 7% as high sport-fishing, 11% as extensive recreation, 11% as moderate forestry, and 6% as moderate coal. The forest potential generally conflicts with watershed, sport-fishing, and ungulate range.

South Kakwa East - 57(12,13), 58(11,12)

This is the area east of the South Kakwa River and it extends down to Willmore Wilderness Park. Existing dispositions include forest leases over the entire area and petroleum and natural gas leases over about half. Approximately 15 sections are covered by coal leases.

In terms of best uses, F.R.A.S. designates 28% as excellent watershed, another 6% moderate watershed, 14% proven key winter range, 17% extensive recreation, 11% sport-fishing, 14% ungulate range, 4.5% moderate coal which conflicts with high sport-fishing, and 6% moderate forestry which generally conflicts with watershed.

Porcupine Crossing South - 59(10), 60(10), 61(10)

The Nose Mountain road extends past Porcupine Crossing over the Kakwa River, south to the Copton tower on Copton Ridge (6088'). South of Copton Creek lies an unnamed ridge with a peak of 6800 feet. Existing dispositions include a lookout tower, 2 forestry campsites, a forestry cabin and an airstrip. The whole area is covered by forestry leases, while coal, petroleum and natural gas leases exist in approximately one quarter of the area. There are road applications in 9 quarter-sections.

In terms of best use, F.R.A.S. designates 37% as excellent ungulate range, 21% as high ungulate range, 17½% as watershed, 9% as high sport-fishing, 5% as proven key winter range and 4½% as extensive recreation. The 1.5% moderate forest cover conflicts with watershed, and the 4% moderate coal potential lies adjacent to Copton Creek.

RESTRICTED DEVELOPMENT AREA: SUMMARY AND RECOMMENDATIONS

This analysis has covered an area of 625 sections. In terms of best potential land use within the proposed Restricted Development Area, the following proportions and their quality were designated:

| | | |
|---|---|---|
| Watershed | - 27.3% | - generally excellent |
| Ungulate Range | - 28.7% | - generally excellent and high |
| Proven Key Winter Range | - 15 % | - excellent |
| Recreation | - 9.4% | - intensive at Kakwa Falls; high at Two Lakes, Torrens River, Lick Creek, Stinking Creek; extensive throughout. |
| Sport-Fishing | - 8 % | - high |
| Forestry | - 9.3% | - moderate |
| Coal | - 2.3% | - moderate, lying in three areas of sloping, rugged terrain adjacent to Kakwa River and Copton Creek. |

In summary then, we believe that these results of the Foothills Resource Allocation study, researched and prepared, not by a special interest group, but rather by scientists paid by the government, and correlated through computer analysis, substantiate the arguments which have been put to the government for two and a half years by 10,000 supporters of Wild Kakwa.

Although published flow data is not yet available, it seems clear that this area is an important watershed, but a delicate one due to weak flows, steep slopes, and poor bank stability.

Hand in hand with this use go Key Winter Range, ungulate range, sport-fishing, and extensive recreation. Combined, a total of 88% of the area examined would be best used for these five purposes.

It is therefore our specific recommendation that the area as defined in this report and on the accompanying map be established as a "restricted development area" under Section 15, the Department of the Environment Act, and that:

a) all outstanding coal and petroleum leases be cancelled.

b) timber harvesting be restricted to small scale cutting areas and winter operations, with detailed, prior environmental impact studies.

c) any and all proposals for development should be referred to the Environment Conservation Authority for study with a

c) con't...

specific view to ensuring proper environmental protection and due consideration of the recreational aspects involved, and ensuring the necessary public participation in decisions concerning the region.

d) the road from Two Lakes south to Kakwa Falls should be upgraded to a reasonable dry-weather standard.

We are open for questions.

This chart lists for each sub-region the number of quarter sections which would best be used for each resource listed, the quality of that resource, the percentage of that sub-region, plus an overall summary.

| | FORESTRY | | COAL | | WATERSHED | | PROVEN KEY WINTER RANGE | | RECREATION | | SPORT-FISH | | UNGULAT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NO. | % | NO. | % | NO. | % | NO. | % | NO. | % | NO. | % | NO. |
| Two Lakes West 62(12,13,14) | -84 | 23 | NIL | NIL | -42 | 11 | ≡106 | 30 | ≡37 | 10 | ≡30 | 8 | ≡ 15<br>≡ 51 |
| Torrens Mtn. East 61(12,13,14) | -23 | 7 | - 3 | 1 | ≡53<br>-46 | 16<br>14 | ≡21 | 6 | ≡14<br>- 3 | 5 | ≡13 | 4 | ≡ 41<br>≡ 32<br>- 76 |
| Horn, Coal Ridge 60(14) | NIL | NIL | NIL | NIL | ≡45 | 75 | ≡ 5 | 8 | NIL | NIL | ≡ 2 | 3 | ≡ 8 |
| Sulphur Range 60(12,13) | -25 | 9 | - 4 | 1.5 | ≡156 | 55 | ≡51 | 18 | ≡ 5<br>-18 | 8 | ≡ 4 | 1.5 | ≡ 21 |
| Kakwa River 59(12,13,14) | NIL | NIL | NIL | NIL | ≡17<br>- 8 | 7.5 | ≡50 | 25 | ≡ 1 | 0.5 | ≡13 | 6.5 | ≡ 5<br>≡ 115 |
| Kakwa River North 59(11), 60(11) | -30 | 11 | -19 | 6 | NIL | NIL | NIL | NIL | -31 | 11 | ≡21 | 7 | ≡ 104<br>≡ 78 |
| South Kakwa East 57(12,13) 58(11,12) | -26 | 6 | -18 | 4.5 | ≡113<br>-25 | 27.5<br>6 | ≡57 | 14 | -70 | 17 | ≡45 | 11 | ≡ 10<br>≡ 39<br>- 8 |
| Porcupine Crossing South 59(10), 60(10) 61(10) | - 5 | 1.5 | -13 | 4 | ≡60 | 17.5 | ≡18 | 5 | -15 | 4.5 | ≡32 | 9 | ≡ 123<br>≡ 68 |
| Restricted Development Area | -193 | 9.3 | -57 | 2.3 | ≡565 | 27.3 | ≡308 | 15 | 195 | 9.4 | ≡160 | 8 | 594 |
| Kakwa Wilderness 57(13,14) 58(13,14) 59(12,13,14) | -62 | 15 | -28 | 6 | ≡211 | 50 | ≡25 | 6 | - 6 | 1.5 | ≡35 | 8 | ≡ 50<br>≡ 15 |

NOTE: Quality of resource indicated by number of dashes on left side of column; ≡ excellent; ≡ high; — moderate. Data derived from Foothills Resource Allocation Study and compiled by J. Brackenbury.

QUESTIONING BY THE AUTHORITY

MR. KINISKY:

How close is the Torrens River Resort project to the edge of the wilderness area you are proposing?

MR. BRACKENBURY:

They have on record two different sites. Their most recent location, I understand, is at the airstrip, so you are looking at 12 miles.

MR. KINISKY:

You state that Procter and Gamble have said that 25 per cent of their merchantable timber lies within the area of special interest to the Wild Kakwa group. Where did you get that information?

MR. BRACKENBURY:

It has been publicly quoted here on numerous occasions. Also, we have on file a letter from Procter and Gamble to the government which quotes that figure.

MR. KINISKY:

How does that fit in with the evaluation done by the forest service?

MR. BRACKENBURY:

My examination of the map supplied by the forest service leads me to believe that there is very little compatability between the two.

MR. KINISKY:

You talk about keeping the Kakwa Falls as a wilderness area as described under the statutes, that is, no vehicular access at all. Is this the kind of thing you want? We are having some trouble with the terminology in these hearings because people talk about wilderness as meaning many different things. I would like to have your definition of the term "wilderness".

MR. BRACKENBURY:

We have examined the legislation from time to time over the past few years. Obviously there will be questions about specific points in it, but the concept of wilderness as defined in the existing Act is consistent with our own approach to it.

The way we perceive the borders of the wilderness area is as follows. The Kakwa River forms one border. With recreational fishing and so forth permitted in the river itself, it's basically the interior bank that forms the boundary for the wilderness area. The South Kakwa heading down to where Willmore juts out forms the other one with the same condition there. So we say, come right up to it but once you are crossing the river we don't agree with vehicular access and so forth.

MR. KINISKY:

We have heard from other planning commissions as well as this one the concept of having special land-use categories within a general recreation area. Would your group look at this kind of general plan in which we have some completely closed wilderness and varying degrees of participation by people within the whole study area?

MR. BRACKENBURY:

Are you referring to something along the lines of zoning policies?

MR. KINISKY:

Yes.

MR. BRACKENBURY:

We haven't discussed that specific question. Personally, I would tend to agree with that. We have outlined certain guidelines and priorities for the restricted development area, for instance, and I think the sort of thing I have been talking about today is almost in line with zoning.

MR. KINISKY:

How big is your restricted development area?

MR. BRACKENBURY:

It's 625 square miles.

MR. KINISKY:

Does that include the wilderness area?

MR. BRAKENBURY:

No.

MR. KINISKY:

So we are talking about a total of approximately 725 square miles?

MR. BRACKENBURY:

Yes.

MR. KINISKY:

We have also had some reference to intense recreational use at the falls, so I presume that you will have a fair number of people there. Are you suggesting vehicular access of some kind?

MR. BRACKENBURY:

Our basic concept is to have vehicular access to a clearing, but we would backspace from there, putting in camping and picnicking facilities, rather than having a major accommodation. We would space them all the way back in very small scale efforts rotated on some sort of regular basis.

The existing road was abandoned this year. It gets washed out quite often at stream crossings and causes a lot of problems. People just gumboot their four by fours down through there, carrying mud with them and so forth. The road should either be upgraded with proper culverts or it should be abandoned, closed off and grassed. In my amateur view, I don't believe that road was properly constructed. I don't believe it has proper drainage ditches, proper crowning and so forth. However, I would leave detailed comments to a professional.

MR. KINISKY:

How far from the falls is the clearing area?

MR. BRACKENBURY:

That clearing is about three-quarters of a mile upstream. You can continue on the road downstream for about a quarter of a mile to a final clearing. At that point it's closed off and you walk in about half a mile from there. You get in right above the falls. It's a very impressive sight. It's not what you would call a developed path. There is a trail through there but it's not used.

MR. KINISKY:

Four and a half miles around the falls you have a recreation reserve. What sort of protection do you have within that designation?

MR. BRACKENBURY:

I used to think that a recreation reserve provided very good protection until I started examining the Wapiti River valley which we understood to be a recreation reserve. You discover all the legal exceptions which occur. I have serious doubts whether there is any point to it when you can go in and construct a gravel pit without even approaching the commission or Lands and Forests. You just go through Mines and Minerals. This is a problem that Kakwa has had to face, and I'm not sure we have solved it. Perhaps you will come up with a wiser solution as to how one gets coordinated and controlled development. We think the intent and wording of the restricted development areas legislation is good. I guess we would like to see what would happen if it were put into practice.

MR. KINISKY:

How close to the falls is there evidence of ecological degradation from coal mining exploration and similar activities?

MR. BRACKENBURY:

Three-quarters of a mile is the closest I'm aware of. There might be members of the audience who can pick things closer.

MR. KINISKY:

Is that activity going on now?

MR. BRACKENBURY:

No. That was stopped when the recreation reserve was created.

MR. KINISKY:

Has any repair work been done within that four and a half mile area?

MR. BRACKENBURY:

I think the best people to answer that would be the Alberta Forest Service. I was down there recently. They have cleared it right up to the river bank and there are no trees left whatsoever. For some reason these camps don't like a ridge of trees around the river bank and there has been no restocking and no apparent reseeding.

MR. KINISKY:

Is there any evidence of serious siltation associated with this exploratory work?

MR. BRACKENBURY:

The more obvious siltation is along the road as you go in. There it's extremely obvious. The road is washing out in several places. They have extracted along the road. When they have finished removing an area they don't backslope it and it's neither replanted nor reclaimed. Ground rules may exist for all of these things but enforcing them is a different matter. What do you do once they are violated?

MR. KINISKY:

Who built this road?

MR. BRACKENBURY:

To the best of my knowledge Notice Exploration was among the builders of this road.

MR. KINISKY:

Why do you feel there is insufficient enforcement? Is there a lack of staff or lack of desire to enforce?

MR. BRACKENBURY:

In part - and I'm speaking for myself rather than for Kakwa because we haven't officially discussed this - I think the answer was in Lorne Sully's comments. In the past, departments operated somewhat independently of each other. For instance, the Lands Branch and the Parks Branch within Lands and Forests seem to operate against each other at times. The Lands Branch is more in tune with the needs of industry and commercial activity, and the Parks Branch is more in tune with parks space and other needs of what we would call the recreating public. Sometimes they contradict each other. We have some fine examples of contradictions a few miles south of Grande Prairie.

MR. KINISKY:

So you feel there has to be more coordination of various efforts?

MR. BRACKENBURY:

By all means, and also the legislation should be cleaned up. You spoke earlier about the joke over Willmore Wilderness Park. I would suggest to you that the old provincial parks legislation has similar problems when it doesn't exclude right of entry arbitration. Oil companies have the legal right to enter a provincial park or Willmore Wilderness and cut their lines. They simply get approval from Mines and Minerals.

MR. KINISKY:

Have you reported the effects of environmental degradation to what you feel is the proper authority?

MR. BRACKENBURY:

Specific examples have been reported to you and to the cabinet in various meetings. I don't know whether you would consider yourselves the appropriate authority or not.

MR. KINISKY:

When you talk to the local forest officer or fish biologist or game officer do you get any response?

MR. BRACKENBURY:

I think Gordon Aalborg has had more experience with that kind of question. He has been our secretary since the inception and would be more in tune with that sort of correspondence.

MR. AALBORG:

I can't think of specific examples. The problems we have had in the past are finding out who is in fact responsible for damage and who you talk to. For instance, if we go to forestry they say they have nothing to do with it. It's a run-around game. We don't know who to go to, and in many cases the other departments of government who may be quite involved in the area are not involved in one specific thing and don't know who to go to either.

One example, I think, is classic. Two years ago, I believe, an oil company decided to drill a well. And they did, right in the middle of the road. We went down one weekend and about 15 families had to turn back because they were constructing their drilling pad right in the middle of the road. You can't argue with a catskinner. He said he was building a drilling pad and he didn't care if we could get by or not. It wasn't his problem. The toolpush wasn't there that day and nobody else would take responsibility, so everybody turned around and went home. Subsequently we tried to find out who gave them permission and the upshot was that they had gone through the proper channels. This meant that they had located the place on a map, somebody said it looked good, none of them having seen the area at the time, and away they went. They were within their legal right to drill their oil well in the middle of the road. But I think it's bloody ridiculous.

MR. BRACKENBURY:

I would like to add another specific example. When we were first aware of road work on Horne Ridge, I started asking questions and phoning government departments to find out what was going on and who had approved it. I kept getting put aside and each person told me I would have to contact somebody else. Finally, during the first week of July, 1971, I made a person to person phone call to the then Minister of Mines and Minerals. I said, "It looks like there is some exploration work going on. What's going on in there?" There was another fellow on my end of the line and he said, "There have been no leases or permits issued in that area." You may recall that was during the period of the election campaign. A month after the election we discovered that the entire area had been leased out to coal mining companies in June of that year for 21 year periods, and

yet in the first week of July the Minister of Mines and Minerals denied directly to me any knowledge of activities in that area.

What are you supposed to do when you go right to the top and get a denial which is later proven to be incorrect? That helps to explain some of the frustration we tried to communicate in the first part of our brief.

MR. DOWLING:

This proposed wilderness area will abut Willmore Wilderness. What difference would exist between these two areas, or would they in fact become one?

MR. BRACKENBURY:

The best answer I could give would be to say that I agree with the comments of Lorne Sully of the Peace River Regional Planning Commission. Earlier you were talking about zoning and getting some sort of integrated plan, but we do not have on record specific recommendations with respect to Willmore.

MR. DOWLING:

What sort of activities would you have in Wild Kakwa that you couldn't have in Willmore?

MR. BRACKENBURY:

Are you referring to the wilderness or the restricted development?

MR. DOWLING:

I was referring to the wilderness.

MR. AALBORG:

It's not what we would allow in Willmore; it's the other way around.

As I understand the Act which sets out Willmore Wilderness Park, the park has virtually no protection from oil, gas and coal extraction. There are a variety of ways around it, and we foresee, having seen what has already happened, additional small chunks being taken out of Willmore. We look at the establishment of the wilderness area as we have set it out, as a wilderness area under the Act. If they want to fiddle around with Willmore Park, which obviously they are going to do anyway, we say there is nothing we can really do about it. We would like to see this specific area under The Wilderness Areas Act. There should be no vehicle access and nobody wandering in and out with cats looking for coal on the basis of such and such a lease.

MR. DOWLING:

I'm referring to recreational activity. How would recreational activities vary from one area to another?

MR. AALBORG:

At this time we would have to accept The Wilderness Areas Act in terms of what can or cannot be done in our proposed wilderness areas. I'm not totally sure at this time just where the differentiation is.

So much of what is recreational is based on access. The area of Willmore which adjoins our area is equally inaccessible and from most points of view the simple matter of access controls what can or cannot be done.

MR. DOWLING:

You have recommended that there be one road upgraded from Two Lakes south to Kakwa Falls. On what principles has your group decided regarding access to the area? How far are you going to go?

MR. AALBORG:

I would say we are looking at the northern approach first. If you had in effect a parking lot at the clearing, people wanting to see the falls could walk from there. We visualize them doing that; fishing below the falls if this is their intention, returning to their vehicles and going back along the road to a variety of smaller campsites.

MR. DOWLING:

How would people get into other parts of the wilderness area? Should there be a road up every valley, or are you saying that some of these valleys should be held sacrosanct and there should only be hiking trails or horse trails on them?

MR. AALBORG:

There is a sort of trail out of Grande Cache to the southern boundary of this wilderness area. We could foresee the possible opening up of that road to the boundary so there would be road access at both ends. There is river access up the Kakwa from other existing roads for people who choose to go that way.

MR. DOWLING:

What additional facilities would you expect to find? Would you recommend having campgrounds in the area?

MR. AALBORG:

Not within the wilderness area. However, in the restricted development area we propose a series of smaller, say 10 or 20 unit, campgrounds rather than one huge campground at Two Lakes which is all you have right now. You have the facilities which exist around Two Lakes and everything else puts people pretty well on their own.

MR. DOWLING:

You referred to the gravesites at Porcupine Crossing and various other places that might have historical value. Are any of these sites endangered by industrial activity?

MR. AALBORG:

Not to my knowledge. I might point out that the gravesites at Porcupine are accessible and fairly obvious. To our knowledge there are others all along the Kakwa River, most of which virtually no one knows about. As far as we are concerned this is the way it should stay. We are not proposing that there should be little sign posts which would automatically set up possible violations.

MR. DOWLING:

With regard to protection of the area, which of the principle industries do you fear the most?

MR. AALBORG:

Coal. There has been some discussion on proper forest management, but basically I think logging poses the least possible threat from any industrial point of view.

MR. DOWLING:

You mentioned that coal leases were let out in 1971 prior to the election of the new government. What was the date for the leases granted to Procter and Gamble?

MR. BRACKENBURY:

December of 1968.

MR. DOWLING:

When you talk about cancelling all outstanding coal and petroleum leases, don't you think some compensation would have to be given to people who own those leases at this time?

MR. AALBORG:

I think there are two points to this. One in my view is the simple fact that at the time we began discussions - and of course this may be irrelevant to the current issue - there was one lease. We said that if it was stopped now you would have virtually nothing to compensate for. The reaction there was to dispose of leases by the bushel. Now they would have to compensate or at least negotiate and say, look, if there is no obvious potential can't we find a nice reasonable way of negotiating for another area that may be better for development? We are not looking at the government walking in and saying that everybody must move out. We are looking at a reasonable approach to it which, of course, will take some time. But I think it should be open to negotiation and there should not be the attitude that leases are out and you can't do anything about it.

MR. BRACKENBURY:

I would like to add two comments as well. First, our original request was for a freeze on that activity while dispositions were being sorted out. We have been frozen for two and a half years now but we'll reiterate the point that these kinds of activities were not.

Second, it was obvious that there was a tremendous flurry of activity after we first became public. I think there was a certain amount of opportunism involved in taking out a lot of leases.

MR. DOWLING:

We have determined that since your group became public a large number of leases were let. There is no development per se within the area of which you speak, but there is exploration. So the stage we are at right now is one of exploration and there have been no licences or permits for the actual development of mines or the cutting of pulpwood and so on.

MR. AALBORG:

To my knowledge the coal and petroleum leases are all exploration leases. There is a sawmill operating which is apparently in the development stage, and I understand it will be pulling out at some time in the near future. I understand that should Procter and Gamble decide they want to cut in that area next year they can go ahead. But I don't think this is their plan.

Our contention is that a lot of the exploration work has effects equally serious to what you would find in a development situation. They are baby strip mines. They have been up there knocking down vast areas and taking off overburden. In our view the reclamation is insufficient on these high ridges. You take off the topsoil and rock and in our view at least there is no way it can be reclaimed.

DR. TROST:

You developed a great deal of public support in your petition. Do you still have a copy of that petition?

MR. AALBORG:

The original petition was sent to the Minister of Public Works and we haven't seen it since.

DR. TROST:

Would it would be possible to get a copy?

MR. AALBORG:

If they didn't throw it in the garbage can.

DR. TROST:

In the development of your position you got support. Did you get opposition?

MR. AALBORG:

Not significantly. Apart from the expected opposition from the industrial area, and that never came out as specific opposition, the biggest problem we have had is the same one I believe both you and the Alberta Wilderness Association have had, the definition of wilderness and what you can or cannot or should or should not do in it. We have within our membership people who feel they should be able to hunt and fish. Other members of our group say hunting shouldn't be allowed. The only thing we seem to be totally agreed on is there should be no vehicular access and no industrial exploitation. The other things in my mind are in terms of management. These are the certain specifics of how The Wilderness Areas Act will evolve as it's given further consideration.

DR. TROST:

Part of this was just a matter of clarifying in your mind the definition of wilderness areas in the new Act.

MR. AALBORG:

We have reached the conclusion that even if we don't agree totally with every aspect of The Wilderness Areas Act, it does provide some protection. Certainly The Willmore Wilderness Park Act and The

Provincial Parks Act don't give us that protection. In our minds, if we can't hunt or fish at this time, fine, let's at least protect it and we will worry about the hunting and fishing afterwards.

DR. TROST:

For the Kakwa Falls area you have decided to use the definition of wilderness areas in The Wilderness Areas Act. Are you doing that because the Act is there or do you think it's appropriate to your wishes for that area?

MR. AALBORG:

A little of both. Basically it is appropriate insofar as we view the protection aspect. We fully favour the protection aspects of the Act. But it is also the only vehicle we have and we have to accept that.

DR. TROST:

Will the restricted area surrounding the wilderness area you are seeking be used for the same purposes as those proposed by the Alberta Wilderness Association in its wilderness recreation areas?

MR. AALBORG:

We accept the fact that in such a large area there will perhaps be some significant timber harvesting, conceivably even some mining. But we regard it in terms of the recreational values working side by side. It becomes a multiple-use concept but we want a properly controlled multiple-use concept where every aspect is considered.

DR. TROST:

So for your two zone proposal you would consider subzoning within the outer zone?

MR. AALBORG:

Certainly.

DR. TROST:

You say coal is your biggest problem and that 2.3 per cent of the area is listed for coal, but only moderate and lying in difficult terrain. If it is only moderate and so small a percentage, its development seems unlikely since other coal deposits are rated higher than that. Are you sure about that figure?

MR. AALBORG:

Of the number of quarter sections that we examined within the area, 2.3 per cent would be best used for coal.

DR. TROST:

Why did you use the word "moderate"?

MR. AALBORG:

The quality of that coal throughout the entire area is moderate.

DR. TROST:

So it is the best use for that region, but the coal is not so good?

MR. AALBORG:

That's right. I am concerned about the proximity of this area to Grande Cache.

DR. TROST:

But in the restricted-use zone you're proposing, are there areas designated not only best for coal but designated to have a high quality coal potential?

MR. AALBORG:

No, none whatsoever according to our sources of information.

MR. BRACKENBURY:

Horne Ridge and Coal Ridge have been indicated to be the hottest coal prospects in Alberta right now. We are not the people to judge.

DR. TROST:

I'm questioning that figure because of the two sides.

MR. BRACKENBURY:

There are two basic concerns with respect to coal. We maintain that the exploration work is very damaging to the environment and also that actual development would probably be worse. But the biggest threat is that if you develop a mine, where will you put your people? Where will you get the coal out? The only logical way we can foresee at this stage is a railroad out of Grande Cache, a truck route or some other way in order to move the coal. You must wipe out a variety of potential good uses for that area.

DR. TROST:

When we see coal rated as 2.3 per cent moderate do you want us to question whether or not that is an accurate statement?

MR. AALBORG:

These figures summarize the results of the computer printout maps which represent a count of the Foothill Resources Allocation Study assessment of the various areas. We're not prepared to see that 2.3 per cent developed for coal. There is probably coal throughout the entire region.

DR. TROST:

I presume leases given out are exploration leases. Have any of these exploration leases shown up coal in deposits that are sufficiently worth while for the companies to seek development leases?

MR. AALBORG:

So far as I know, the companies have never shared any of their findings with us.

DR. TROST:

Then you don't know whether there are any development leases out?

MR. BRACKENBURY:

No, we do not know that.

DR. TROST:

Then there are at present no coal mining companies in any stage of operation in the area?

MR. BRACKENBURY:

I believe that's correct.

DR. TROST:

But you have some reason for feeling that there may be?

MR. BRACKENBURY:

Yes. When you fly over Horne Ridge I think you will see the reason.

DR. TROST:

Is that the result of exploration work?

MR. BRACKENBURY:

Yes.

DR. TROST:

Are you suggesting that the exploration work has caused scars? If so, do you know whether the scars they caused resulted in the discovery of high quality and competitive coal deposits?

MR. BRACKENBURY:

That's correct.

DR. TROST:

With regard to the coal situation in the restricted area, if as you say 2.3 per cent of the area shows only moderate coal deposits, it would not seem worth while to mine.

MR. BRACKENBURY:

No. I don't wish to misrepresent what these figures mean. This shows potential best land use on a quarter section basis. Various researchers have filed reports on the quality of a particular land use, taking one with the highest quality in a particular quarter section and adding the scarcity factor. They will rank the quarter sections and say which is the best even if the quality of that coal is only moderate. This does not suggest that there is no coal in other areas, but there also may be other values there with higher priority.

DR. TROST:

In some of that 2.3 per cent area is there moderate and high quality coal?

MR. BRACKENBURY:

No. The coal throughout, according to these sources, is of a moderate quality. There are three locations in the entire area in which the coal potential is rated as pretty good. Even though of moderate quality, there might be a large ridge of coal or some other factor to show that this piece of land might not have particular uses for other reasons and has been rated by the computer as suitable for coal.

DR. TROST:

Does page 16 of your brief clearly express your appreciation of the existing situation? If it does, it is possible that coal companies will cease to develop. I would ask you to review your statement because the situation you have described might lead a coal company to explore but not to develop. You are suggesting ways which would enable these two zones to be set up as a wilderness area.

You had some discussions with Procter about their leases. What costs might be involved or what possibilities are there for relocating the other existing leases in respect to oil, gas and coal? Have you made any assessment of that?

MR. BRACKENBURY:

No, we haven't.

# CITY OF GRANDE PRAIRIE

## SUBMISSION

## TO

EASTERN SLOPES HEARINGS
Grande Prairie, Alberta

Presented By: Mayor E. Borstad
July 12, 1973

SUBMISSION TO EASTERN SLOPES HEARINGS - GRANDE PRAIRIE

JULY 12, 1973 ON BEHALF OF THE CITY OF GRANDE PRAIRIE

As the Hearings in this area are dealing with mostly Crown Lands, we should define this term 'Crown Lands'. It seems Crown Land is thoughtof, as belonging to Government - some distant authority far removed from the people - when in fact it is their (the peoples) land and should be used in their best interests, not that of Industry and Government.

The Citizens of Grande Prairie have just cause to be concerned with the management of the Lands in the Smokey River Basin, primarily that area in close proximity to the City.

Our primary concern is for our water supply; continuing availability of high quality water is essential for any urban centre.

The City obtains its water supply from the Wapiti River with a plant situated on the river bank worth over 1½ million dollars, with additional upgrading plant construction valued at $412,000.00 this year. Next year we will be investing $110,000.00 in bank protection to protect the plant from flooding, and some minor items worth about $100,000.00 will be all that will be required to complete the upgrading of the Plant, and then it should provide our needs for 5 to 8 years.

Submission to Eastern Slopes Hearings July 12, 1973

We are very concerned about development in the Wapiti River System as it affects the supply and quality of the water at our water plant. Therefore we wish to see effective controls and proper management of the watersheds and forests in the Smokey River Basin.

There are some 30,000 people in this immediate area, and projections are for this to double by 1980. With the economic growth and increased leisure time for more people, the existing recreational areas are hopelessly inadequate. Crown Land still exists in these northern areas of the Province relatively unencumbered by long term obligations - it is available now but will not be in the future for recreation or parkland without immediate action.

Only 30,000 acres of a once much larger tract of natural parkland still remains as Crown Land above the Wapiti River. This area is near Grande Prairie and is locally called the Dunes. The City residents use this area extensively for picnicking and day outings, and this type of use will increase. Preservation of this Crown Land for recreational use is imperative. We therefore

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recommend designation of the Dures area along the Wapiti River as a Provincial Park, for casual day use. Submissions have been made to Government in the past on this matter.

Our other major concern in the Smokey River Basin is a highway link between Grande Prairie and Grande Cache, which would facilitate communication and transportation, as well as expand tourism and recreational use.

Therefore the Environment Conservation Authority should be aware of the importance of the Wapiti River watershed to the citizens of Grande Prairie and district, both in terms of economic investment in this water supply and the recreational value of the Wapiti River Valley, including O'Brien Provincial Park.

Mayor E. E. Borstad
City of Grande Prairie

QUESTIONING BY THE AUTHORITY

MR. DOWLING:

You speak of the dunes as being a local area for day use and picnicking. Is the Kakwa area south of there used by local people from Grande Prairie?

MR. BORSTAD:

Yes, it is.

MR. DOWLING:

What other areas might they use for outdoor recreational activity either for long weekends or for a two week holiday?

MR. BORSTAD:

For long weekends they might go to Sturgeon Lake, Moonshine Lake, Saskatoon Island or O'Brien Park which has opened recently; for short outings, such as an evening meal, they would go to just above the Wapiti in the dunes area which I mentioned.

MR. DOWLING:

Apart from hunters who might possibly take a week or ten days to hunt in the Smoky River basin, would local families take a two week summer holiday in that area, or would they have to go some place else?

MR. BORSTAD:

I doubt whether they would take their families in, maybe some but very few.

MR. DOWLING:

What reaction did you get to your proposal for a provincial park in the dunes area along the Wapiti?

MR. BORSTAD:

A Wapiti River valley study was completed about 1969 by various departments of government, the county, the regional planning commission and the City of Grande Prairie. Recommendations were made to the government and I understand a recreational designation was put on the area.

Since then, there have been seismic lines, et cetera through the area, gradually cutting it down in size. Land has been sold. We are concerned that the government will be spending some $15 million in the large urban centres to buy back land when we already have land here if we just hold onto it now.

DR. TROST:

You say the citizens of Grande Prairie have just cause to be concerned with the management of lands in the Smoky River basin. Are you referring to watershed problems of any sort?

MR. BORSTAD:

Naturally. It is our main water supply. The kind of water we're going to have at our plant depends on good management in the basin.

DR. TROST:

Have you any specific problems now or are you thinking of the future?

MR. BORSTAD:

We're only concerned that there be good management so we don't clearcut areas and get a fast run-off which results in floods. We had a flash flood last year, a natural flood. If this were aided by clearcutting and clearing vast areas in one area we could have problems.

DR. TROST:

Has there been a history of flood problems for the city?

MR. BORSTAD:

Last year was the first flood since 1935.

DR. TROST:

Do you feel that might be controlled by watershed management rather than by flood control devices?

MR. BORSTAD:

As far as the banks of the Wapiti River are concerned it would be hard to have flood control because the banks are pretty bad; they slide continually.

DR. TROST:

Does that create a particular problem for you in the operation of your water system?

MR. BORSTAD:

We have no problem with the plant operation as it stands now. Last year there was an exceptional flood. We had four inches of rain in the mountains in June, and the snow and water came down together.

People have said we were crazy to put the plant there initially, but I think that's the first time in history the water has come up that high.

DR. TROST:

So your flooding problem is so infrequent that it is not a serious problem for you but one to which you have to pay some attention?

MR. BORSTAD:

We do not think that type of flooding will occur again. We plan to carry out bank protection. We were able to save the plant at a cost of around $50,000 last year, but that is not such a huge amount when you think of the investment we have there.

DR. TROST:

I'm not familiar with the seasonal changes in the flow of the Wapiti River. With the population growth you suggest may occur here, do you foresee a water shortage problem in the future?

MR. BORSTAD:

We don't see any in the foreseeable future.

DR. TROST:

Are you in better shape than some of the places further south in that respect?

MR. BORSTAD:

Yes, that's why we're concerned about keeping it that way.

DR. TROST:

With respect to the dunes, what facilities are there in these Crown lands for people using them for recreation or picnic purposes?

MR. BORSTAD:

There are no facilities there at all. There is the odd cabin scattered throughout on a 25 year lease or something like that.

DR. TROST:

Are these cabins used extensively by families going out for recreation and do people camp overnight?

MR. BORSTAD:

Maybe, but mostly by younger people. The area is not developed and we want to see it left that way rather than cutting it all up.

DR. TROST:

How far is it from the city?

MR. BORSTAD:

Only about three or four miles.

DR. TROST:

Can you walk out?

MR. BORSTAD:

Yes.

W. Broughton summarized the Canadian Petroleum Association's Submission presented formally in Calgary.

QUESTIONING BY THE AUTHORITY

MR. KINISKY:

What is the oil industry's view on penetration into the Kakwa Wilderness area? Do you feel it is necessary to carry out exploration and do extractive work if oil is there?

MR. BROUGHTON:

The process by which a drilling site is selected is based on subsurface geology. What you see on the surface has no relation to whether the physical site happens to land on a road that may not be known to be there. In that case the people who made the actual selection in the field could probably have avoided that. It's one of those situations where the lease was probably approved and taken within the limits of cost.

MR. KINISKY:

Is there any possibility, in discussions with those interested in the preservation of the Kakwa area, that the oil companies involved might consider withdrawal or the lapsing of their leases to afford some protection to the area generally?

MR. BROUGHTON:

This is a matter of value. If the subsurface geology shows that there is a valuable oil or natural gas resource to be recovered there is certainly some doubt that the companies would pull out and leave it there. On the other hand, if the subsurface geology shows that commercial oil and gas production is very unlikely, then I'm sure this would be considered.

An overwhelming number of members of the Canadian Petroleum Association wish to achieve a reasonable balance in all of these matters. If there is cause for consideration in this case they certainly would like to discuss the matter with the authorities.

MR. KINISKY:

When you talk about multiple land use, how did you wind up with an oil well being drilled right in the middle of a road heading out to the Kakwa Falls area?

MR. BROUGHTON:

The detailed physical lease is granted on the basis of preliminary surveys. In these unsurveyed areas, perhaps a surveyor has selected a site based on his one survey. So when the site was selected probably no one knew there was a road there. These areas are unsurveyed and it might be very difficult for anyone to know of the existence of a road.

# SUBMISSION TO THE ENVIRONMENT CONSERVATION AUTHORITY OF ALBERTA REGARDING LAND USE AND RESOURCES DEVELOPMENT IN THE EASTERN SLOPES

JULY, 1973

NORTH CANADIAN FOREST INDUSTRIES LIMITED

PRESENTED BY: W. MANARY

## Introduction

North Canadian Forest Industries Limited is a member of the Canfor group of companies which is 100% Canadian owned. North Canadian itself is an Alberta incorporated company with its assets and head office located in Alberta. We are a highly integrated forest products company; growing and harvesting trees; producing plywood, lumber and pulp chips. In addition, North Canadian Forest Industries Limited is one of the largest employers north of Edmonton with a large input into the economy of the region.

We are concerned with proper forest management and environmental protection. Among the employees of the company we have a large staff of professional foresters and forest technicians as well as experienced fieldmen to plan and implement our logging and reforestation programs.

## Employment and Contribution to Economy

North Canadian's labour force fluctuates somewhat with the season but the average annual labour force is 810 people with a payroll of approximately 7 million dollars.

In 1972 North Canadian's operations realized a total of $22 million in sales revenue after deducting freight. We estimate that nearly $19 million of this was derived from outside Alberta with $21.7 million being spent in Alberta. These figures serve to illustrate the major extent that North Canadian operations are presently contributing to the economy and stability of the Peace River country.

## Environmental Impact of Mill Operations

In the field of forest utilization North Canadian has been a leader in the development of total wood utilization to its best end use.

Following the development of the first plywood plant in Alberta (1953), North Canadian was the first to centralize sawmill facilities thus eliminating wasteful bush mills; the first company in Alberta to establish the process of wastewood chipping, and the first to design and build a teepee burner meeting air pollution standards in the province. The very near future will see the extension of sawmilling activities to include the ability to efficiently handle smallwood to an eight inch butt and a four inch top.

Air pollution is a primary concern to the company. As earlier noted, the teepee burner, approved by the Air Standards and Approvals Division of the Department of Environment, has proven very efficient in the waste disposal from the company's sawmill and planer complex in Grande Prairie.

No water is used in the manufacturing process, therefore, pollution from this source does not occur.

Environmental Impact of Woods Operations

Through careful long range planning, North Canadian has brought under sustained forest management areas which were formerly underdeveloped and almost inaccessible. These forests were basically even-aged spruce and pine stands, which originated after wild fires, in an unmanaged and unprotected state. Now, the area's productive capacity is being protected and utilized. With good management, successive forest crops will be available for future generations.

The Department of Lands and Forests guidelines for logging, roads, watershed protection and pollution are complied with and are in evidence in our annual operating plans submitted for approval to the Forest Service prior to operations and are evident also in the actual field operations.

The cutting system presently in use is mainly a clear cut based on a 50% cut-leave system where alternate blocks or strips, an average of 40 acres in spruce and 60 acres in pine, are cut. This system is adapted to the natural even-aged pine and spruce stands.

It should be noted that variations in strip widths and directions are made to conform the cutting patterns to the topography and the characteristics of the forest types.

The leave strips are left until the first cut-over areas have been regenerated satisfactorily. After the cut-over has regenerated, the leave blocks are logged as soon as possible to reduce losses due to blowdown, insect damage and decay.

It is conceded that clear cut areas possess little aesthetic beauty particularily before the "green - over" by aspen suckers, herbaceous and grass cover. Nevertheless, clear cutting does atone for this short coming in many ways. One, clearcutting continues as the best only means, in most instances, to ensure the satisfactory development of a new crop. Pine, for example, is a shade - intolerant forest species and requires a cleared area with minimal vegetative growth and exposed mineral soil for satisfactory regeneration. Spruce on poorly drained and wet sites form one or more whorls of lateral roots from the stem which results in a plate-like rather than a tap root system. Selective or partial cutting in such stands often result in severe windthrow and consequent waste. Clear cutting in blocks reduces windthrow loss and also retains a possible seed source on the periphery of the cut-over areas.

Two, clear cutting is also beneficial in controlling insect and disease outbreak. Finally, clear cut areas in the "green - over" stage are beneficial in maintaining high game populations. Access to these cut-over

areas via company roads has greatly enhanced big game hunting in the company's timber holding.

The clear cut harvest system has received considerable publicity and warrants discussion. Firstly, the term "clear cut" as applied to our operations gives the wrong image. On the average, only 200 - 300 coniferous trees are removed from an acre and often the remaining poplar more than ensures the micro - climatic conditions attributed to selective cutting.

Secondly, clear cutting does not markedly decrease the erosion resistance of an area. The danger of erosion lies in the removal of the protective litter and duff, as is occasioned by forest fires and some poorly planned skid roads. The major number of North Canadian Forest Industries Limited skid roads and landings are constructed in the winter and the resulting limited disturbances of the protective litter and duff has made these roads receptive regeneration beds. Regeneration surveys have shown that skid roads and landings are not erosion problems but rather, excellent seedbeds for spruce and pine. Logged over areas immediately adjacent to these skid roads are often not satisfactorily stocked due to heavy litter and duff. These duff areas often require scarification to reforest them.

A well planned network of major, secondary and skid roads is a prequisite for good forest management. All company roads are planned by North Canadian Forest Industries Limited and subject to approval by the Department of Lands and Forests. The main roads are engineered and constructed to very high standards to facilitate heavy traffic and to carry heavy loads. Potential erosion and run-off areas are seeded to grass, stone barricaded or eliminated by culverts. Slump areas along the roads are being studied and various methods are being tried to reduce water flow and thereby impede slumping.

Whenever possible, North Canadian Forest Industries Limited attempts to use existing roadways when they are suitable. Working agreements have been made for long-range use of main roads constructed by the Imperial Lumber Company and the Shell Oil Company. It should be further noted that North Canadian has an open offer to oil companies that timber damage payments on proposed roads in North Canadian Forest Industries Limited's lease area will be waived providing the roads are built to a standard usable for log hauling. In the past, oil companies have been encouraged by the Department of Lands and Forests to use existing seismic lines for road right-of-ways. This has led to road networks which are unacceptable for logging operations because of poor alignment and severe adverse grades. We encourage the development of multiple resource use roads.

The company bears the responsibility and costs of surveying and regenerating cut-over lands. Regeneration surveys are conducted three to four years after logging to permit some time for the natural restocking planned for in the cutting system. Cut-over areas assessed as "unsatisfactorily stocked" are restocked by planting or scarifying and seeding. The objective of treatment is to ensure that all cut-over lands are completely reforested with three year old coniferous seedlings ten years after harvesting.

It must be emphasized at this point that a further 10 years will be required for the trees to reach 4 or 5 feet in height because of the slow initial growing period in our northern forests.

EPEC Consulting Ltd., in its submission to the Environment Conservation Authority on the Forest Industry in Alberta, estimates that

7,500 sq. miles of forest land in Alberta has high capability for intensive recreational use. This is about 5% of the total forest area. The other 95% could be used less intensively for such recreational activities as hunting, fishing, wild life appreciation and extended hiking trips. The submission further emphasizes that wilderness recreation and timber operations are generally complimentary rather than conflicting activities. This is because clear cutting results in forage for big game and logging roads provide access for recreationists.

North Canadian's timber holdings are outside the proposed "intensive recreational use" areas. The company is, however, aware of recreational needs and has established and maintains a campground area (Latornell Campground) on the Forestry Trunk Road. This campground was designed primarily for hunter use because, in the past, they have been the prime recreational users of the area. The campground is also suitable for fishermen, picnickers, berry pickers and campers.

Summation

In summary, properly managed forest harvesting can provide:

a. Employment of Alberta citizens.

b. Availability of building materials - beauty of wood
   - supply and demand effects prices.

c. Improved game habitat.

d. Improved fire control - by access
   - by removal of over mature timber.

e. Reduced loss to insects.

f. Salvage of over mature timber that would otherwise blow down.

g. Access for the public for hunting, fishing, camping, hiking, etc.

The public's ideas regarding forest area use for recreation change quickly. Only a very few years ago, hunting for meat was the prime use. More recently canoeing, cross country skiing, trail rides, hiking, camping, photography and snowmobiling have gained considerably in popularity. Access has become increasingly important for providing an opportunity for more citizens to take part in these activities.

It is to be remembered that our forests are a unique natural resource in that they are renewable. They are also unique in another fundamental way - industry provides the access roads which enable the woods to be utilized for employment, woods products and other industrial benefits while also giving the public access to the recreational and wild life resources potential of the area.

QUESTIONING BY THE AUTHORITY

MR. KINISKY:

Are you doing the clearcutting in block patches or in relationship to the contours of the land, the drainage basins or the creeks?

MR. MANARY:

I cannot make a broad statement because conditions in the woods should be determined in the woods. We call it the checkerboard system which is perfectly acceptable on flat ground. We revert to irregular patches and try to follow contours when we're in undulating topography. It is very simple and economically better for us in the straight skidding patterns. We would not try to log across a very steep ravine which would cause several difficulties, as well as being totally uneconomical.

MR. KINISKY:

In many instances in Alberta there has been clearcutting right to the water's edge. How careful are you about that procedure?

MR. MANARY:

We do not cut up to the water's edge as such. We follow the provincial regulations. There is, however, one decided disadvantage in not cutting up to the water's edge in large timber because the high trees that are left above the canopy are very, very susceptible to wind throw and create a decided disadvantage to streamside disturbances.

Selective logging is not the answer, but in this instance in our leave strip we take out not necessarily the largest but the tallest trees. Mr. Sully showed a picture, not of a clearcut to water, but of a selectively logged stand which has suffered wind throw. It looked similar to one of our stands south of Grande Prairie which was selectively logged to a 14 or 16 inch stump diameter. The residual trees, because of the wind tunnel effect of a river valley, suffered severe wind throw and the area actually looked like a clearcut.

MR. KINISKY:

You made one very interesting comment about allowing the oil companies to knock down trees provided they use a road system amenable to you. Have you had any success in these discussions?

MR. MANARY:

The prime consideration there is probably the time element before sales or other exploration where they have to get in in a hurry. It is an old problem dating back to the time when the forestry service encouraged oil companies to use seismic lines as their means of access. Their money comes from a small surface area but a very long way down. They can afford to spend more getting in and out of an area and consequently construct the seismic lines to a very poor grade standard because they know that after they get their rig in and out they are only involved with supply trucks to that rig.

MR. KINISKY:

What happens to the timber they clear through your management area?

MR. MANARY:

The regulations now state that all companies, logging, oil or otherwise, have to salvage the timber on their rights of way. We offer to purchase this timber because it is a direct loss to us. When we do purchase it we waive the timber damages that they would suffer if it were wasted.

If they do not sell it they have to cut and stack it and the forest service is at liberty to dispose of it as they wish. But it is left in log form as a useful and salvageable product. Timber is never deliberately pushed over and destroyed.

MR. KINISKY:

When they stack this timber some distance from your harvesting area, how long can it stay there before it is degraded to the point it is not usable?

MR. MANARY:

It depends upon the product sought from the wood, sawmilling as opposed to plywood, for example, and possibly the pulp industry for a greater duration of time. I would say approximately two to three years is the maximum a sawlog industry could wait before the timber would have deteriorated beyond use.

Usually you will find that the access deteriorates faster than the wood. It is an advantage for any company or the forest service to dispose of the timber as quickly as possible. The pressure is exerted by the forest service, I might add, to have this timber removed.

MR. DOWLING:

Where are your leases located within the Smoky River basin?

MR. MANARY:

Our leases adjoin the Smoky River immediately north of North Western Pulp and Power's old reserve, and extend east to the Valleyview-Whitecourt cutoff. We hold quotas and a timber stand which is depleting on the west side of the river. We are also on the banks of the Kakwa River. The area is about 1,000 square miles.

MR. DOWLING:

What percentage of what you harvest can you use within your operation?

MR. MANARY:

We are not using deciduous species. We are using the coniferous species and are presently cutting to an eight inch stump and a five inch top. In mature stands we are cutting by definition trees of 120 years and older.

In our clearcut areas there is very little residual left, only about four and a half to five inch tops which are virtually unuseable.

MR. DOWLING:

What percentage of trees would you find under eight inches in a clearcut?

MR. MANARY:

Hardly any. By going to a six inch stump any mature stand would virtually be eliminated and any tree smaller than that would be negligible. We would be lucky to increase our cut by five per cent. So at present we're not leaving very much behind.

MR. DOWLING:

When surveying cutting blocks from the air we see road benches where the logging trucks have had to cross the blocks to pick up timber. Do these benches cause any erosion problems and is there any way to minimize them?

MR. MANARY:

We do go in and correct them, but erosion is a problem which we cannot do much about where we use a slope. We try to get in and out as quickly as possible. We make a narrow road to a landing which has to be on a flat spot to store the timber prior to loading.

We have to do some erosion control but you can appreciate that our operations are in the winter when the ground is severely frozen and there is no way of cutting a road. So the following summer we spend time making 'dipsidoodles' and pushouts to the sides to prevent erosion on any slopes which would run across the contours rather than with them. We have evidence of this in the Smoky River valley, by Smoky tower and Westview campsite and up in that country.

MR. DOWLING:

You indicated it is your company's policy to allow regrowth to take place in a natural manner, and if not, or if recovery is unsuccessful, you reseed within a two or three year period. Is that correct?

MR. MANARY:

We use the treatment best suited to the area. Of course it is impossible to scarify in wet areas because a cat won't float so we plant seedlings on some of the steep hillsides. We have a constant order in hand for seedlings and the professional foresters on our staff look after this.

We are just finishing our reforestation program which we try to do in the spring before the grass is green and hides the young seedlings. If we see an unstocked area we immediately place an order with the government nursery where our seeds are stored, for either two or three year old seedlings. They are ready in three years, or one year, depending upon the type. If not, we scarify in the summertime and do aerial seeding with helicopters during the winter.

MR. DOWLING:

What percentage of the blocks you have cut recover naturally?

MR. MANARY:

We have been having a fantastic rate, but we have been cutting in some very overmature stands which already had seedlings starting in them. To date, it has been in the neighbourhood of 60 to 70 per cent but we anticipate it will be the exact reverse and we will have to stock that amount in the future. Then we will probably drop to as low as 30 to 40 per cent. But this must be done when the areas have to be regenerated very quickly. We have to anticipate when they must be done artificially.

DR. TROST:

I understand that an improvement in your burner was worked out in your plant here. Is that correct?

MR. MANARY:

Yes. Portions of this improvement are quite unique to the staff who developed it.

DR. TROST:

Are you making sales to any of the other companies?

MR. MANARY:

I think that was left open. As I recall, only minimal portions of it could be patented. As such, it is an improvement which the industry should share.

DR. TROST:

Returning to your forest management practices, you operate on a sustained yield basis as the pulp people do. How many years do you estimate for your turnover? Is it the same as for pulp?

MR. MANARY:

No it isn't. We're dealing in different types of trees generally. The rotation age is determined as the optimum growth at its maximum age. Where we're looking for a quality product, such as plywood, we tend to override the years taken by pulp companies because they're interested in fibre more than in wood as a dimension or as a piece of veneer. Consequently, our rotation is presently based on 110 to 120 years rotation whereas that of North Western Pulp and Power is, I believe, somewhere between 80 and 90 years.

DR. TROST:

Is there any cooperation between the pulp people and yourself when you're working on natural stands? Do you exchange the use of materials?

MR. MANARY:

This would be logical. Procter and Gamble is the only pulp company in the area with whom we could possibly make this sort of arrangement, but it is only in the initial stages of its operation.

DR. TROST:

So there is a possibility?

MR. MANARY:

There is a definite and very logical possibility.

DR. TROST:

Did you say you can't use the deciduous material such as the poplar in the stands you are operating?

MR. MANARY:

No, I said we do not use it as it is economically unsound to do so now.

DR. TROST:

Can you use it?

MR. MANARY:

It's possible to use it for production, but the product we make from it is not now saleable. The economics are just not substantial enough to warrant the cutting of poplar. If the market for deciduous timber were to develop, we would be prepared to enter that field. It is a very limited and touchy market right now. We have done studies in this area and are willing to wait.

DR. TROST:

Are you thinking of other possible uses in the future?

MR. MANARY:

Yes. Our prime product is studs and plywood. We would confine our activities towards the manufacturing of any wood product in these two lines.

DR. TROST:

In forest management practice, the growth of the poplar differs from that of the evergreens, but in managing your forests do you let the good Lord look after what comes up?

MR. MANARY:

We do let the good Lord look after it when it comes up but I really don't understand the poplar inference in your question.

DR. TROST:

You are managing forests in which you use only one component?

MR. MANARY:

Right, but we're reseeding the cut-over areas back to spruce and pine.

DR. TROST:

But that doesn't prevent the poplar from coming back?

MR. MANARY:

No, but poplar is not a disadvantage in those areas as it provides a nurse crop for the spruce and pine. The pine would be the only one to suffer because it is a shade-intolerant species. If the poplar were to come in too rapidly it would possibly not let the pine come ahead. In our selection of sites it is highly unlikely that we would seed pine where poplar is advanced.

DR. TROST:

What percentage of your operation is now wasted in poplar growth?

MR. MANARY:

The country has spruce and pine throughout, but we would not likely find vast acreages of pure poplar. In many instances they are in a very slow state of evolution. Spruce is gradually coming back into those areas and providing a nurse crop. If we wait an interminable number of years it will come back to spruce in many instances.

As a counterargument, why should we destroy the poplar and replant to spruce and pine when the poplar may in the future have as great or greater economic value?

DR. TROST:

You compared the uniformity of the forests here with the heterogeneity of those in British Columbia. Is this partly because there are fewer species growing here?

MR. MANARY:

It's mainly because of the fire origin. The coast has a natural evolution of fall-down and grow-up with large amounts of rainfall and a very good growing season, especially in Douglas fir country, whereas we do not. We have a very short growing season. Trees are almost all of the same origin, which is fire, and all come back in at about the same time. An exception is Balsam fir which comes in at any time, usually in mature stands. But it does not make up a large enough component to change our concept of even-aged stands.

DR. TROST:

So is the practice of clearcutting affected in any significant way whether you are planting single or multiple species?

MR. MANARY:

No.

DR. TROST:

Much of the criticism of clearcutting has to do not only with the appearance of it, but with what happens in the first few years after the clearcut. There is such slow appearance of regrowth. Of course, poplar does give an appearance of growth, and so does fireweed and so on. Is there any way you can shorten that dangerous period during the first two or three years after the clearcut?

MR. MANARY:

The only obvious way is to replant immediately. Clearcutting is a size determination in our area. If you're talking about how to recapture a clearcut, the easiest way is to replant it. But it's not necessarily the right way. Natural seeding is probably the best way in any area.

DR. TROST:

Do you really think that in general? When you crop wheat you don't want to let it grow.

MR. MANARY:

Agreed, but you can appreciate we're living under the guidelines we have and according to our own management plans we work under a ten year recapture or rejuvenation of the area in the form of established seedlings. If we have a good seed crop potential it would be rather ridiculous for us to go out and plant the area and then have a great number of seeds fall on it. Our sites are usually good enough for natural seeding.

The biggest problem in our northern country and in our eastern slopes is the fact that the rate of growth of our seedlings is so fantastically slow. We are doing two to three year surveys, three years after seeding, which is a hands and knees process. The grass has to be taken out by hand because the seedlings are very small.

DR. TROST:

Do you do any fertilization?

MR. MANARY:

No, we do not.

DR. TROST:

Are there studies on that?

MR. MANARY:

Yes. With the studies done to date it has been found that if you fertilize seedlings and the control strips, after a certain period of time, I think it is 20 years, they equal one another. So what is the point of fertilizing in the first place?

DR. TROST:

But do the seedlings get protection in their earlier years because of faster growth?

MR. MANARY:

You're into a very good point about silviculture, but I do not agree. It's like planting instead of letting a natural seed fall. If we take out a three year old seedling which is supplied by the nursery and plant it, it is very probable that it will go into planting shock. It could sit there for ten years at that height and all it does is grow more branches. Fertilization may or may not break this. Once the seedling is in and established, it doesn't need the protection. In pine it might, but in spruce it shouldn't.

We are undertaking another type of protection, not soil treatment but the investigation of chemicals that control shrubs and grasses, our worst enemies. Rather than try to make the seedling grow faster we are trying to restrict the growth around it.

DR. TROST:

Is a good deal of attention still being paid to the quick regeneration of a forest after a clearcut?

MR. MANARY:

Absolutely. Our biggest problem, as expressed by Mr. Sully of the regional planning commission, is probably the lack of research passed on by any of the other departments. Very little back-up work has been done. In fact, until Procter and Gamble came here, there had never been more than three professional foresters in Grande Prairie at any one time.

DR. TROST:

How long have you been using clearcut methods in your forest?

MR. MANARY:

Since 1962 or 1964. They began with very small and narrow patches and gradually enlarged them. But we have been at it wholeheartedly since about 1964.

DR. TROST:

Have you gone through enough years of that first regrowth cycle to be able to estimate whether the forest is regenerating itself?

MR. MANARY:

Yes, we have a good success rate of which we are very proud. We have actually cut some of our residual strips, the 1964 cutovers. The growth in these cutovers was sufficiently far advanced that we could cut the reserve strips out.

DR. TROST:

So you think your 120 years is still not a bad figure?

MR. MANARY:

Absolutely not. With a 120 year rotation we'll probably get a 110 year old tree.

DR. TROST:

With better methods at the first stage of the cycle, is it possible to reduce your 120 years to 100?

MR. MANARY:

I think you can appreciate a percentage of 10 over 120 as rather diminished. We know we have to wait 3 years to even establish a seedling. The difference between 3 and 10 is diminished over 120. We are more concerned with getting the proper site treatment and establishing seedlings there. We can then worry about whether it can be done more quickly. We might treat an area artificially and ruin it

temporarily so that it would cost us many more dollars to establish a seedling at some later date.

DR. TROST:

Your own company has had a strong continuous line of development but the lumber market has its ups and downs. Is it now in an up trend?

MR. MANARY:

It's now in a drop. You may not experience it at the local lumber yard, but it is softening.

DR. TROST:

Is there a serious danger that export markets and currency changes can put a business like yours to the wall?

MR. MANARY:

I think this is possible at all times in any business when the market is at its lowest ebb. We try to run as economically and fairly as possible and at the same time develop a market for our product that ensures the longevity of our operation. Since I have been in Grande Prairie we have gone through two severe slumps and have weathered them successfully.

E. Hammer presented a general submission to the Canadian Youth Hostels Association's Proposal which was presented formally in Edmonton.

QUESTIONING BY THE AUTHORITY

MR. KINISKY:

You have proposed locations at Kakwa Falls, Nose Mountain and Red Willow. Are those approximately along the new roadways proposed between Grande Cache and Grande Prairie?

MR. HAMMER:

I believe most of them are. I have never been in the area.

MR. KINISKY:

You wouldn't be interested in a location which was not on the highway route chosen. Is that correct?

MR. HAMMER:

Yes, but let me explain a little more fully. We are interested in locating our hostels near but not right on existing roadways. We have found it is best to locate a hostel off the side of a roadway both for protective purposes and also to avoid marring the landscape tourists drive through.

MR. KINISKY:

In consideration of the study carried out on a new highway route from Grande Cache to Grande Prairie, would you rather wait until you know where that road was going to be before you make site selections?

MR. HAMMER:

At this time our hostel chain effectively ends at Grande Cache. There is no hostel link for cyclists or others beyond Grande Cache. The hostels we are proposing in the region of Smoky River, north of Grande Cache, are essentially for the people of the Peace River area. We foresee that this area will eventually become a separate region and these hostels would be reserved for them. They would activate them as the need arises.

# PRESENTATION TO THE PUBLIC HEARINGS ON TIMBER DEVELOPMENT PROPOSALS FOR THE WHITECOURT - FOX CREEK AREA.

Presented By: E. KURE

THE ALBERTA FISH & GAME ASSOCIAITON

Concerns: The long-term commitment of large blocks of public lands, 1,694,000 Acres or 2,646 Square Miles.

The ecological and environmental impact and conditions of the commitment.

The effect on other resource users during and after the development.

OVERVIEW

Our Association is extremely concerned with an apparent attitude of Forest Management people in Government and Industry that production goals have priority over land management and other resource concerns.

Unless conditions of such large, long-term commitment as proposed recognize the need to integrate other resource users and protect the land base; only conflict will result.

The proposal to harvest timber resources in this area would appear to be an acceptable use of a renewable resource and it is not our intention to oppose such use.

It is, however, our responsibility to request conditions of this commitment that will protect other important renewable resources of the area and avoid or minimize dislocation of those resources.

To this end Government and Industry objectives and priorities must be made clear before development approval is given. Our Association has undertaken to acquaint its members with the facts and results of timber harvest in Alberta and to this end commissioned a study in 1972. We believe that sufficient study data is available to forest management people to avoid damage to the interrelated resources of a project area providing that techniques and restraints are built into the condition of the development lease.

A general condition of all timber harvest permits which has as its goal the maintenance and improvement of fish and wildlife habitat and populations as well as access to these public owned resources will avoid most conflicts. This basic goal will by nature insure minimal dislocation of other resources, the protection from erosion of all waterways and ample margins of cover to all lakeshore and fragile areas.

RECOMMENDATIONS

1. Management of all Crown lands in Alberta whether under Forest Management or not. The lease or commitment must recognize the importance of the wildlife, scenic and recreational qualities of the area.

2. Protection of the environment of the area must be a condition of lease, stating minimun margins of tree cover which must be retained along streams, roads and lakes, the maximum width of a clear-cut based on the gradient and paralleling slope, and the pattern of cut so as to minimize dislocation of wildlife as well as the activity of noisy machines.
3. Removal of surplus slash in a manner which will shorten the rehabilitation period and the time when other resources and other users may be dislocated.
4. Reforestation planning which considers use of food varieties for wildlife should be a condition of lease so as to imply that the forest harvest user might improve some game area in return for the time period when he occupies public land to the exclusion of other uses.
5. Co-ordination of resource managers, i.e. Forestry, Fish & Wildlife and Environment staff with the developer must be agreed to before the granting of a lease to develop.
6. Adequate financing or stumpage levy must be effected to meet with standards and conditions to avoid conflict or appeal later, in the event of the developer being negligent in the use of his lease privilege.
7. No privilege of a lease should exclude users of other resources from an area on public land or create a burden to the public purse because of that commitment.

CONCLUSION

Our Association takes the view that each individual or corporate user of our resources is responsible for his actions and must respect nature and each other. We hope all resource users and managers will co-operate in this objective.

Submitted by

ELMER KURE

Director of Environmental Relations

QUESTIONING BY THE AUTHORITY

MR. DOWLING:

Mr. Manary made a statement about 63 per cent of the moose being killed within one-quarter or one-half mile of the road. Have you any comments on that?

MR. KURE:

That's nothing new to us. When you build roads you make many things more accessible, including our wildlife. It also makes it possible for people to shoot game from automobiles, which we don't really condone. Consequently, we have to shorten the season and cut the bag limits to cope with this problem.

L. Kyllo's presentation of the Alberta Wilderness Association's proposal for the Smoky River Basin is contained in the written record of the hearing held in Grande Cache.

# SUBMISSION OF THE TOWN OF PEACE RIVER TO THE ENVIRONMENT CONSERVATION AUTHORITY AT GRANDE PRAIRIE ON JULY 12, 1973

Presented By: C.A. Campbell

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The Council of the Town of Peace River has authorized this submission because it believes that the particular problem it has encountered could be faced by other communities and for this reason it is of sufficient general interest that it should be known and taken into consideration in the planning of the development of the Eastern Slopes.

The background is briefly that the Town is located on the banks of the Peace River and obtains its supply of water for its water utility system from the Peace River. Also, the confluence of the Heart River, a small tributary of the Peace River, and the Peace River, is located within the limits of the Town. There are water mains located near the mouth of the Heart River.

The operation of the Bennett Dam in British Columbia altered the natural flow of the Peace River. During the filling of the reservoir the flow was reduced. Since the reservoir was filled, the main alteration has been that the minimum flows which normally occurred in the late fall and winter have been increased.

There have been two main effects on the water utilities system. Firstly, the cover over the water mains in the mouth of the Heart River was reduced due to degradation of the bed of the mouth of the Heart River. The Town contends that this was caused by the lowering of the natural flows of the Peace River. Secondly, the water intake which was designed taking into account the natural flows has encountered serious difficulties mainly due to the increase of the minimum flows.

The Town found that it had no recourse except through the Courts. Partly because of the extra-provincial aspect this procedure is proving very involved, cumbersome, slow and expensive. Many issues arising are unresolved in the law. It is not a satisfactory recourse for a community in this position.

Whether or not extra-provincial considerations are involved, as is the case with the Peace River, and such would not be the case in respect of waterways which rise in Alberta insofar as downstream users are concerned, it is submitted that the law is not a satisfactory vehicle for the problems which arise due to the interference with the flow of the waterway.

It is still a common-law principle which establishes the rights to the use of a water course. The leading statement of these rights is a ruling of the Appellate Committee of the House of Lords of England in 1893 and which is still law in Alberta.:

> The law relating to the rights of riparian proprietors is well settled. A riparian proprietor is entitled to have the water of the stream, on the banks of which his property lies, flow down as it has been accustomed to flow down his property, subject to ordinary use of the flowing water by upper proprietors and to such further use, if any, on their part in connection with their property as may be reasonable under the circumstances. Every riparian proprietor is thus entitled to the waters of his stream in its natural flow, without sensible alteration in its character or quality. Any invasion of this right causing actual damage or calculated to found a claim which may ripen into an adverse right entitles the party injured to the intervention of the Court.

The Court has two basic powers in such a situation. It can restrain an act by way of injunction if it is satisfied that the act, if carried out, would wrongfully harm another party. This remedy is available in Alberta if the party against which the injunction is claimed is subject to the jurisdiction of the Alberta court. It is not available to the Town of Peace River in respect of its claim because the party against which it is claiming is outside the jurisdiction of the Alberta court.

The other remedy is damages, that is, the courts have power to award damages to a party injured by the wrongful interference with the flow of a waterway. The party injured must prove to the court in accordance with established legal procedure all the elements necessary to become entitled to the damages. This can become a very difficult task.

However, the most unsatisfactory aspect of this procedure, especially as far as the remedy of damages is concerned, is that the remedy is not available until the damage is done. And damage can be continuing or recurrent. Hydrology as it relates to inland waterways is a comparatively new science and only partly understood.

Provincial legislation, which is contained in the Water Resources Act, has no significant bearing on this problem. It is basically a licensing act and requires that the diversion be carried out in accordance with the directions of the Minister and the regulations enforced. While there is little doubt that, in granting licences, increased attention is being paid to the effect on downstream users, the situation appears to be that this has not yet reached a satisfactory stage.

Also, the Provincial statute does not take away the common-law remedies mentioned above.

Our submission is that a new system should be developed for the protection of other users whenever the flow of a waterway is interfered with. It should be worked out at the government level and should include a thorough investigation of long-term effects before the diversion is permitted. It should also fix responsibility for compensation to injured parties.

All of which is respectfully submitted.

C. A. CAMPBELL, for

CAMPBELL, MARCEAU, GILBERT & MATHIEU
Solicitors for the Town of Peace River.

QUESTIONING BY THE AUTHORITY

DR. TROST:

How long have you been discussing this matter with the governments of Alberta and British Columbia?

MR. CAMPBELL:

The matter arose when this dam was first proposed. In 1962 and 1963 the town carried on some preliminary correspondence with the minister in charge and with officials in Ottawa, expressing its concern about the possible effects. This thing reached a critical stage as far as action is concerned about two and a half years ago. As you know it is now the subject of litigation. But I don't propose to enter into any discussion of that aspect. I'm just dealing with the matter generally.

DR. TROST:

Before which court is it?

MR. CAMPBELL:

It's before the Supreme Court of Alberta, the normal civil court. The case has undergone some preliminary issues, one of which went to the Supreme Court of Canada last fall. But this had nothing to do with the merits of the case. It dealt with the jurisdictional aspect.

DR. TROST:

We will be having public hearings on the Peace-Athabasca delta problem in September and early October of this year. We will be joined at that time by representatives of the Saskatchewan and federal governments. You might wish to bring this to our attention during those hearings since it does bear on them.

BRIEF TO THE ENVIRONMENT CONSERVATION AUTHORITY FOR PUBLIC HEARINGS ON

LAND USE AND RESOURCE DEVELOPMENT ON THE EASTERN SLOPES

Presented By: E. Kimpe

I share with many engaged in agricultural production, the opinion that the ultimate use of Canada's land resource should be that which the land is most capable of. This land capability to be judged by competent authorities holding such jurisdiction, in consultation with other competent advisors including representation from the agricultural industry.

Little land lying within the Eastern Slopes boundary has the capability of cereal production on a continuous croping basis. However, much of this land is capable of growing grass and forage, especially following range land improvement practices.

I urge this hearing to consider making the recommendation that land on the Eastern Slopes with agricultural potential be designated as such, with the view in mind it ultimately be used for such production, livestock production primarily.

The world is experiencing a severe shortage of animal protein, therefore intelligent use of this vast land resource is required to help ease this serious situation.

SUBMITTED BY - ED KIMPE
LIVESTOCK PRODUCER

QUESTIONING BY THE AUTHORITY

MR. DOWLING:

What sort of problems is the industry facing, not only in the Peace River district but more specifically along the Smoky River drainage basin? Is there any stock growing within the basin?

MR. KIMPE:

The concern I have is for the eastern portion of the basin. Many of the slides you saw today were taken in the coniferous areas which certainly would not support any type of stock grazing. But on the eastern portion of it there is a vast area of poplar and willow. Any land that will support this type of tree will certainly support grass.

The industry is somewhat concerned because we are facing a world shortage of animal protein. Canada is a net importer of red meat. It was predicted some ten years ago by the Department of Agriculture that by 1980 Canada would not be able to supply its domestic requirements. This has happened sooner than expected, therefore this industry must grow. There are producers willing to become involved in this growth. It would appear that other than more intense operation of existing ranches and farms, we must look to other land areas to develop this industry. Land that is capable of sustaining livestock production should be designated as such.

With a world shortage of protein, we find that people in some countries must suffer the pain of hunger when they can't get enough to eat. In Canada we are fortunate. The only pain we experience is in the pocketbook when meat goes up a slight amount. I do not believe we should support the theory that the best way to increase a price is to create an artifical shortage. This might possibly appeal to me as a producer, but I feel in the interest of humanity that we must attempt to increase our production.

MR. DOWLING:

When you speak of the eastern portion of the drainage basin are you referring to the east side of the Smoky River?

MR. KIMPE:

Primarily.

MR. DOWLING:

Is not a great deal of that land already under timber lease?

MR. KIMPE:

Yes, a large portion of the Procter and Gamble management area is located there and probably other holdings as well. The portions of these that are not supporting coniferous timber should be considered for improved grazing.

MR. DOWLING:

Are you speaking of land which is at relatively low elevation?

MR. KIMPE:

Not necessarily.

MR. DOWLING:

To what elevation could you develop stock grazing?

MR. KIMPE:

There is a large portion of land south of Debolt for some miles and stretching east that is supporting poplar growth now. There are presently grazing leases in the area, but they are utilizing wild grass which is not the best. The feeling is that ultimately this should be developed into improved grazing, and that portion which is capable of supporting grass should be used for that purpose.

MR. DOWLING:

Do you foresee your recommendation conflicting with the leases held by Procter and Gamble? Will they use the deciduous forest?

MR. KIMPE:

They have not indicated that they will use it, but with their reforestation program I assume that they would consider ultimately reforesting the entire area with trees they could use. It may take many years, but I see the day when possibly there will be no place for the livestock industry.

I don't believe a multiple land-use policy is necessarily workable there, because a rancher must have a long-term lease in order to develop his business. I don't see how he could operate when he can only graze an area a certain number of years or is not certain he will get it. He must be able to obtain at least 20 year leases and have the right to develop the land.

MR. DOWLING:

Is there stock growing in the immediate vicinity? If the land were set aside, would this mean the enlargement of existing operations or the establishment of entirely new operations?

MR. KIMPE:

Both. Economics dictate that operators must get bigger, although they might not wish to. Twenty years ago a herd of 50 cattle could provide an adequate income. But now we are looking at possibly 200, and maybe in another 20 years we will be looking at 500. As an industry we must look to increasing our cattle numbers and to going into areas such as these.

MR. DOWLING:

Is this grey wooded soil?

MR. KIMPE:

Yes. It is considered marginal soil and won't sustain cereal grain, but it has a great capacity for growing grass.

MR. DOWLING:

Do you feel that your submission would be largely supported by other stock growers in this vicinity?

MR. KIMPE:

Very much so. In my term as President of the Peace River Stock Growers Association we discussed this a great deal. In fact we asked the government to make a study of the area's potential. We were not satisfied with the results of the study.

Although I refer in my brief to a competent authority, I sometimes wonder what constitutes a competent authority. This morning we heard a brief by the planning commission, which I assume we could call a competent authority. But I certainly do not agree with the portion of their submission which indicated that very little land in the area could support livestock. Therefore I think a competent authority must include representatives of the producers and possibly the Department of Agriculture.

MR. DOWLING:

Have you had any discussions with the Department of Agriculture regarding this proposal?

MR. KIMPE:

When I was President of the Peace River Stock Growers Association we submitted briefs to the present Minister of Agriculture.

MR. DOWLING:

What results did you get?

MR. KIMPE:

Unfortunately I never received a reply.

MR. DOWLING:

How many square miles do you think could be developed for grazing purposes?

MR. KIMPE:

I couldn't give you the figure in the eastern slopes, but there have been studies in the past by the federal Department of Agriculture indicating that in the Peace River district there are some 50 million acres which have agricultural potential. I would say a large portion, maybe one-quarter of it or less, lies within the eastern slopes.

D. O'Donnell submitted the Torrens River Recreation Resort Proposal for the second time. The proposal was originally presented in Grande Cache and may be found in the written record of that hearing.

QUESTIONING BY THE AUTHORITY

MR. DOWLING:

Although the members of the Authority questioned this proposal extensively when it was presented in Grande Cache, we do have a few more questions.

First, this morning the Wild Kakwa group made reference to the possibility of there being two sites under consideration. Is this the case?

MR. O'DONNELL:

That is a misintepretation of the material that has gone out. We have always looked at the area just off Sherman Meadows and named it the Torrens River Recreation Site. Probably the two names have led to the misunderstanding.

MR. DOWLING:

How long would it take to carry out the studies of vegetal cover, wildlife and so on that you mentioned?

MR. O'DONNELL:

A lot of the information is now available through the foothills resource inventory. This is based on research of the general area. We would probably have to do more study on the specific site we have chosen. I would estimate we are looking at probably another four to six months, depending on how much information is available.

MR. DOWLING:

Wouldn't some of those studies require examination of the problem over a full year so you would have a complete cycle?

MR. O'DONNELL:

You are probably referring to the snow situation. Considering the time we would like to put the facility in, we can make predictions based on past data from two centres, applying it to the site and projecting this over the next three to five years.

MR. DOWLING:

Have you considered the economics of the proposal at this stage or will this come later?

MR. O'DONNELL:

Economic feasibility has been looked at only in a general way at this time. We would have to consider a number of other aspects in order to determine the complete viability of the project.

First, an analysis of the recreation tourist traffic on Highway No. 16 to Jasper and Highway No. 43, the Alaska Highway, would have to be done.

Secondly, there would have to be an application of recreation user statistics to potential market areas. At the time we prepared the report - and I must point out that when we prepared the report we were in a very preliminary stage in looking at the site - we

simply put together available material. The only user statistics we could find were related to the ski market in Canada. That was the general mean we applied in the report. However, that mean may be much less in Alberta. We would have to check out sources of that kind of information here in Alberta. It will probably require original research on camping, hiking, snowshoeing, cross-country skiing and this kind of thing. When we prepared this report this kind of information was not available. We would hope to find it available, but if not we would prepare it ourselves.

The third area would be a review and analysis of demand for facilities for the various activities. By simply observing the present spin-off from Jasper and Banff it is clear that the proposed facilities could certainly contribute to accommodating people turned back from the national parks. Of course Banff is a little far away. I think Jasper would be the primary site we are looking at.

Fourthly, there would have to be an analysis of recreation travel patterns in Alberta as they relate to the activities offered. Finally, a review of available literature would be necessary to make sure whether we are using proper and up-to-date techniques to determine market potential. This data would then have to be applied to the potential populations not only of the Peace River block but also of Census Divisions 11, 14 and 15. So we are looking at a much more in depth and broad analysis than is indicated in our original report.

MR. DOWLING:

Is it possible that a detailed economic feasibility study would show that the project is not viable?

MR. O'DONNELL:

This is a possibility but all the indications are that it probably will be viable.

MR. DOWLING:

A number of recreational developments on the eastern slopes were not economically viable and are unfortunately no longer in business.

MR. O'DONNELL:

I have come across a piece of research which indicates four major reasons why commercial recreational developments do not succeed. These are poor administration, poor financing, inadequate development or development in stages not related to user demands, and improper site programming. We have tried to take account of these in our proposal.

MR. DOWLING:

Are the proposers of this project Canadian?

MR. O'DONNELL:

Yes.

MR. DOWLING:

In your studies of snow conditions in the area would you be inclined to consult local authorities as well as getting outside expertise? What would be your mode of operation?

MR. O'DONNELL:

We would use every method possible to determine the exact conditions on that site. Even though we consult snow data from Grande Prairie and Hinton in an attempt to establish a mean for our site, obviously there may be microclimatic conditions of which we are not aware.

There is also the possibility of using snow-making machines. This is certainly a realistic economic supplement to concentrated snowfall in certain areas.

MR. DOWLING:

As I recall you told us you would need about 200 acres for the development of your building site. Is that correct?

MR. O'DONNELL:

No. For the initial core site our client has an option on 10 acres. This does not mean that the whole 10 acres will be asphalted. It simply means that that is the core of our operation. The activities relating tightly to the core area would probably range from five to seven miles from the lodge. Backpacking into the unique areas surrounding the site would probably not extend more than 15 to 20 miles. Although Kakwa Falls is outside that boundary, we would certainly consider it a unique area to visit either by pack train or backpacking.

MR. DOWLING:

If you have an area which is set aside for cross-country skiing, trails, snowshoeing and so on and it lies within a lease which you would have for development, would the public who are not using your facilities have access to those trails and so on?

MR. O'DONNELL:

The fact that we would have single access to the site would indicate some sort of control. In discussing this we felt that the minimal number of people attempting to poach on the facilities we are developing would be of no concern to us.

MR. DOWLING:

What about the maintenance of trails beyond your boundaries but necessary for full recreational use of the development?

MR. O'DONNELL:

We would seek trespass rights and maintain those trails ourselves.

DISCUSSION ON TORRENS RIVER RECREATION RESORT PROPOSAL

MR. BRISTOW:

Dudley Bristow, Beaverlodge, Alberta.

What length of lease is Mr. O'Donnell asking for? Is he or the public going to build and maintain the roads while his corporation skims off all the profit from the users when they get to his site?

MR. BEAIRSTO:

Rick Beairsto. I speak on behalf of the Wild Kakwa group.

The Wild Kakwa group raised the point of an alternate site. Information Bulletin No. 4 from the planning commission listed an alternate site. I don't know how it originated but that's how we interprete the map. I don't think it's a misinterpretation.

I repeat Wild Kakwa's position on the feasibility and the location of this kind of recreational development. This position is fully supported by the planning commission.

It is our opinion that the ecology of the area cannot support this type of concentrated and intensive recreational use without severe environmental damage. Watersheds would be particularly affected by a development of this type. The microbiology of the area would suffer immensely from intensive recreational use.

It should also be pointed out that the present site is within the boundaries of the key wintering range for Rocky Mountain caribou, a species that tends to disappear with any kind of significant human development.

We feel this type of development should be located near one of the existing urban centres, either Grande Cache or Grande Prairie.

The size of the facility is really huge. I won't bother with the list of things that will be developed. Suffice it to say it is really staggering to read about a tavern, saunas, a nature interpretive centre in the middle of the main campsite, the showing of movies, and trails running God knows where. Note that there is provision for future expansion of all facilities.

In relation to the statistics on market demand, I'm no economist, but the $2.2 million figure for phase one development has to be suspect.

If 4.1 per cent of Canadians ski it does not logically follow that 4.1 per cent of the population of Grande Cache will journey annually to this resort for some skiing.

I think the most important point concerning this whole development is the access. I quote from the Torrens River brief: "This proposed development is designed to permit access but also to protect the elements that draw people." It should be noted here that the primary access will be by aircraft. I would suggest that this is the most ludicrous nonsense I have heard recently. Not only is environmental damage extreme from this kind of development, but I would suggest the whole exercise to be a smooth digression to avoid stating just what kind of exclusive clientele this type of resort would cater to. I don't think I have to suggest to anyone the income bracket of the typical client of this resort.

Finally I would like to reiterate the question: who are the financial backers of the Torrens River resort development? They won't reveal it to the members of the commission and they won't reply to written or verbal questions from the planning commission. What have they got to hide? Perhaps it is, as we suspect, a speculative plan, a purely paper plan designed to win approval at these hearings and at some time to gain a substantial profit for financial supporters upon transfer.

We consider the proposal to be such a gross disservice to the public at large that it warrants no more of your time or ours. To approve this kind of proposal would be to the detriment of Alberta citizens present and future.

MR. BRACKENBURY:

Jim Brackenbury, President of Wild Kakwa.

I would just like to add a few comments and questions to those Rick has already raised.

Quoting from the brief: "We are looking at hiking access to various locations including Two Lakes, Torrens Mountain, Kakwa Falls and Deadhorse Meadows." I would like to point out that good hiking access already exists from the area you indicate to these spots. Perhaps that is what you have in mind.

You seem to waffle a bit in your discussion of a ski site. First you want one. From your original presentation in Grande Cache, I understand you are definitely going to have one. Now, with some hindsight, you have decided that some environmental study is necessary before you can build it. It strikes me that a ski site is the essence of your proposal; necessary to the year-round economic viability of your project. Are you really serious in saying that if the figures don't pan out you won't go on with a ski site?

My third point may appear minor but is consistent with other errors in the submission. Your written submission refers to Miscellaneous Lease No. 965 and you then designate it the area for which you hold the lease. In your submission this evening you mention that your client holds an option on ten acres. I question both statements.

Our research into that question both in Grande Prairie and at the Land Titles Office in Edmonton indicates that no such lease exists. In fact your client, who we are able to name, and won't for your sake, made an application for this site and was turned down. A previous lease was held for the site by a local man and that was ultimately cancelled because he did nothing about it. So please don't confuse the issue with assertions about lease holdings when to our knowledge - and we may be wrong as well - they don't exist.

Your proposal may be near the base of Mount Robson if you look at it from the moon. But it's 75 miles away as the crow flies so your assertion is somewhat misleading.

Just another small error. You said that the road into your site from Grande Prairie is 75 miles. I would like you to show me the route. It's 100 miles from here to Two Lakes and that's a few miles south of Two Lakes.

Seriously we wonder if you and your consultants who took the slides have visited the area for more than a couple of days. We really get the impression that it's an Edmonton firm of professional

consultants who have come to impose a grandiose scheme on our area. We don't think you really know it or understand it and are not really in tune with what the area is all about. I don't think we want those kinds of impositions on our area.

A minor error, Kakwa Falls lies to the south of your proposal rather than north as you indicated in your slide presentation.

I will close with a general comment. You keep making references to the need for detailed study later but you want approval now. I think this is part of the normal pattern of events with developers. For example, coal mine operators say, we'll worry about reclamation later. Quite often in our country they don't seem to get around to it. We would suggest to the Authority, to the people here and to the Government of Alberta that it is time that we demanded from developers like this full detailed environmental impact studies before we'll even hear their submissions.

MR. BRISTOW:

I was a delegate to the Unifarm Regional Convention in Grande Prairie some weeks ago. I brought to the convention a resolution: "Resolved that we support the efforts of the Wild Kakwa organization in their efforts to conserve the wildlife and ecology of the region." This is the second time this resolution has gone through our convention unanimously.

I also have a statement from the Monkman Pass Fish and Game Association President, Mr. Cecil W. Powler: "We of the Monkman Pass Fish and Game Association have always supported Wild Kakwa in their conservation efforts."

Our concept of Wild Kakwa was a conservation area, not an exploitation and development area. This was the last thing we were thinking of. When we support conservation we mean this would be held by the people of the province for the people of the province. If at any time it should ever be developed, the people would decide what would be done with it. It should never be put into the hands of private corporations to exploit for their own profit. If we ever hear that this is threatening us seriously we will go from house to house and get signatures from thousands of people to stop this thing in its tracks. We will not stand for it. I'm speaking for many people in farm organizations and fish and game associations as well.

MR. VOGAN:

Peter Vogan, private citizen.

I am starting to run out of reasons because they are being duplicated. Page 2 of the brief states they have environmental scientists on their team. I would like the gentlemen to name one from the group at the back and please don't mention Micki Renehan who has a certificate in the flora of Alberta from NAIT 1972 or a certificate in ecology from NAIT in 1971. I want someone who is an environmental scientist.

I find the dependence of this proposal on air access interesting. If they invest $2.2 million, they will have to depend heavily on the ski area in the winter. If it is to be kept open it will be much the same as the Bugaboos. I am familiar with that project and do not think this one compares with it. The draft proposal states only a quarter of the users will be skiers. This is ridiculous.

How can you bring in people by air and have them snowshoeing or drinking beer? It's a pretty expensive trip to the pub.

Absolutely no meteorological study has been made. They have not stated what angle of the hill can hold snow. They talk of it as an "untouched area". As a newspaper correspondent I worked intimately with ecologists in Banff for over two years. A lot of work goes into a hill before you even set one ski on it. It involves a lot of scraping, digging and tower building. I would like to ask whether any rock core samples have been taken to see if the hill can stand it. They have not studied Torrens Ridge.

They have two paragraphs on the characteristics of the ecology that they call "untouched". One says the soil is grey wooded soil with a short growing season, which indicates the plant life would probably be of a fragile nature. Probably of a fragile nature? This is mountain terrain with very, very fragile plants and animals.

Their description of the vegetation, from an environmental scientist by the way, says vegetation is mixed deciduous and evergreen woodland. That's their total description of the covering of this very delicate area.

We move on and see that the ridge is two and a half miles away from the site area. How are they going to get there? A road would have to be built.

They say the CYHA is involved. I would like to know how they are involved? They say that youth was involved from the start on this development concept.

They propose using unconventional systems of disposal which they say may entail a larger capital expense than conventional systems. They then mention landfill which I don't think is unconventional and is certainly not unconventional in Banff where all these things are required right down the line.

There is a beautiful statement that the site is inaccessible by road from Grande Cache. In the very next paragraph they say bicycle access to the site from Grande Cache should be evaluated and these trails should be provided separately from the roads. What roads? The encouragement of access by bicycle in the summer could create a desirable reduction in automobile traffic. There certainly will be a reduction. There was no auto traffic to start with from Grande Cache.

They talk about trails. He says that trails are not necessarily different ones. What is being talked about? This concept intrigues me. They talk about leasing 10 acres as the core of this area, then talk about the rest of the area. What type of leasing arrangement has been made? He hasn't even hinted at them. He just says they are dealing with Procter and Gamble. You don't deal with Procter and Gamble because they don't have the land to deal with. You must go through the provincial government.

He talks about trespassing which is very interesting because there is no applicable criminal trespass law in Alberta. He cannot kick anyone off. He can sue them, but that's a bit of a headache when you are 100 miles in the bush. He cannot get anyone to arrest or take people off the trails.

He talks about stealing his trails. These trails will be on leased areas. How will he keep people off leased areas accessible by public roads? What are we stealing when we walk on the trails?

In Phase 1 he has camping at selected sites along the Torrens River near Kakwa Falls at Two Lakes. We have them at Two Lakes and I'm sure the government has been wondering if more are needed. If more are needed the government will put them in. Of course these people obviously having claimed the boating privileges on Two Lakes will probably claim credit for these camping sites. Also, who decides the camping sites along Kakwa River? According to this brief they do. This is all Crown land. Yet this man is saying they are going to lease land right up to the Kakwa which is over 12 miles away. Who decides on the trails? How many miles of trails? How wide are they? Multiply the length by the width and that's quite an area. There is nothing in the brief about this and yet you have a $2.2 million project up in the air that they have probably put $1,000 into already.

An indoor swimming pool- I would suggest that Lou Johnson move Grande Prairie to the site because we'll be late with our swimming pool.

I was really amused when he read the criteria for a successful business. He talks about why businesses fail. Poor administration - if you haven't even checked into the snow conditions how can you predicate a $2.2 million deal on it? That's incredible. Poor funding arrangements - I won't argue about that because he won't release any information about it. Developers do not go large enough - the federal government is the opposite end of that. They went too large at Lake Louise and found out. I agree that quite a few areas in the foothills have floundered. One of them is Pigeon Mountain. I'm sure Pigeon Mountain cost about that much to develop. They put it on the wrong side of the hill. There was no snow.

His figures are incredible and he admits this in an oblique way. But again this points out the ignorance of the group behind this project. They named the population in this area. They say Edmonton has X population and they say Census Division No. 11 has X population. If you look closely you will see that Edmonton has been counted again in the same census division. In other words their population is 540,000 and they say the Census Division has 980,000 people. That includes Edmonton, and yet it's added twice as is Grande Cache, Grande Prairie, Hinton and Edson. They're all added twice. The population is about 800,000 less than represented here. Yet they have based a $2.2 million project on the people they hope to draw. What kind of idiots are these people if they can't count the number of people properly? How can they base a project on these figures? It's incredible that we are faced with this at a time when we have groups like Wild Kakwa that can't get enough public support.

Wild Kakwa was asked for a petition of 10,000 signatures. These people weren't even asked for their names. I don't mean to sound funny because this makes me mad.

We are very lucky that this area has a Kakwa Falls in it. The Rainbow Lake area was very unfortunate not to have a Kakwa Falls. I worked up there and I know the damage that was done in the area, it was just ignored by both the public and the government. I have a letter from Peter Lougheed. Talking about the area proposed by Wild Kakwa as a wilderness area he states: "More than three-quarters of [it] is either non-timber or supports unmerchantable timber or inoperable stands of timber. The deletion of this area would not have a significant adverse effect on Procter and Gamble."

MR. DOWLING:

We have to listen, that's the boss speaking.

MR. VOGAN:

That dispells any arguments that the area has merchantable timber of significant value.

MR. HAMMER:

Ellis Hammer. I'm speaking as an individual and as the President of the North West Region, Canadian Youth Hostels Association.

First, I would like to read from page 6 of the proposal:

> Supportive facilities of our proposals such as kitchens, cafeterias and lounges could be used by the North West Canadian Youth Hostels Association. This group is currently proposing the development of a hostel in the Kakwa Falls area. If they could make use of these facilities, the cost of their proposed hostel could be considerably reduced. The developers are most receptive to including the Canadian Youth Hostels Association in the proposal.

We of CYHA provide simple low-cost accommodation for all, but especially the young. We have in the past in Alberta provided these accommodations to cyclists, cross-country skiers, snowshoers, backpackers, nature lovers generally and people who like to come into the wilderness away from everything man has built.

We do this at a cost of $1 a night for accommodation. Hostellers supply their own bedroll and food and do their own cooking. This proposal seems to advocate a new type of hostel where we provide the sleeping accommodation and they supply what we would call the common room which actually has a kitchen and lounge. I'm a little confused how the cost could remain simple and low.

In the Silver Summit development we had a hostel last year which consisted of a dormitory room in the chalet. One dollar and a half was the charge for the sleeping accommodation and members who did go there reported that the overall cost was really prohibitive. I hope you can enlighten me on this matter.

MR. O'DONNELL:

Thank you very much gentlemen for your very meaningful but subjective evaluations.

We are not exploiters and we are people of the province. So just because you happen to live in this area doesn't mean that I, as an Edmontonian, or one of my associates, as a Calgarian, or another associate as a person from Slave Lake cannot have access to this area. I have as much right to this area as you do, since I am contributing to the kind of outdoor recreation leisure experiences that the people of this province and nation are demanding.

With regard to the lease I must clarify that point. The reason we are making a presentation to the Environment Conservation Authority is to gain approval in principle to justify the expenditure on the research that is required so we can develop this site properly. As a result we have decided to present the concept in abstract. We have not developed any plans so we are not putting a nature interpretive centre in the middle of our development. Where it will go I don't know. The lease will be under negotiation. Our client had an option of picking this up from another individual.

I'm not going to go into the criticism with regard to who we were and what lease we hold and so on. They got themselves into enough hot water because of that.

With regard to roads we are looking at our primary access being from Two Lakes with additional upgrading in order to give us access to the site in the winter. People in Grande Cache say there is a road from Grande Cache into the Kakwa Falls area that eventually ends up in the Sherman Meadows area. It was washed out by the Smoky River last year and now the only access is by a four by four. So with this road upgrading we would have access from the north and south.

The slip up with north and south is the kind of thing that you usually expect when you are in front of a group of people and you make a small slip. Some people tend to pick them out and nail you with them but really they aren't justified.

With regard to the first individual from Wild Kakwa, it was nice to entertain you last night and buy you coffee and doughnuts at our presentation. I can't say that I wish I had known who you were at that time because now I don't. But it was nice to entertain you.

With regard to location, there was only one site and there is only one site.

With regard to ecological considerations, they are outlined. We have every intention of keeping to our proposals and all you can do is take my word. It is a subjective opinion that a site cannot be designed in an area such as that and not contribute to the deterioration of the total environment. Certainly in any development we can say that walking along a trail and picking a flower is destructive of the ecological system. I agree with that and realize this as a recreation planner. However, I also believe that if there are areas as unique as we have in this part of the province they warrant observation by other people. I think we should provide other Albertans and Canadians with the kind of jump-off facilities that they have a right to expect in order to experience that environment. The extent of development, of course, is entirely up to the individuals who are developing that kind of project. I am sorry if I have trouble making eye contact with the people who criticize me but I am trying to.

By moving the site closer to Grande Prairie or Grande Cache, we develop an urban centre regional type of development and not a wilderness experience.

How big? I don't think I have to outline the proposal any further. You have your own ideas right now.

With regard to the ski development, I agree.

I emphasized access by airlines in my presentation. It is the unique primary access, not the only access. I would like to see the information upon which you declare it will cause environmental damage and result in deterioration of the area when we are just using a strip approximately 500 feet wide and 3,000 feet long.

The facilities, if built, will be available to everyone in the province or nation at a reasonable cost. That runs from a 50 cent overnight tent to a $1.50 to $3.00 rental on a trailer. All you can do is take my word. If you don't take my word, phfft!

Why should I disclose who the company members are? We have no obligation to reveal to you who they are. I just can't understand why

you are demanding that. You have no right to demand that. If I were under testimony like in the Crump inquiry it would be declared. The major shareholder in Grande Prairie is Mr. George Isberg.

We are only too willing to work with various local groups and that is the reason we have been on the road since Sunday presenting this proposal to the town councils, chambers of commerce and anyone else in the towns of Hinton, Grande Cache and Grande Prairie who was interested.

Just for the record we have the support of the town councils and chambers of commerce of the towns of Hinton and Grande Cache.

Mr. Brackenbury, it was hard to pick out your questions but I will try to respond to your declaration.

When I refer to trespass rights I'm not referring to prosecuting anyone. If you were familiar with the term you would realize that trespass rights are rights that a person has to go on another person's property. They don't own the area they move on, they simply have access to that area and that's all.

You are right, we do require further site analysis. But as I said before it's not sensible to go ahead and do any more work until we have the okay from the ECA. They have frozen land development. If they had not frozen land development we would have gone ahead and collected all this information and put it into a much better report than we prepared. First you require us to do further site analysis and then you criticize us for wanting to do it.

The access from Grande Prairie is approximately 125 to 130 miles. The access from Hinton is approximately the same. The distance to the site is approximately 35 to 40 miles depending on whether or not you use that washed-out road from Grande Cache.

You question our professional integrity. You, by your own admission, are an amateur in the area of planning. Our planning team represents a variety of professional disciplines which is in business to do exactly the kind of thing we are retained to do. The report we prepared was preliminary in nature and does not reflect the end product of which we are capable.

By presenting again to the ECA we are looking for approval in principle so we can proceed further to assess the economic viability of this proposal.

Mr. Vogan, why are you out to humiliate us both in your paper and your remarks? I would never lower myself to that kind of statement. It's not a professional evaluation. It seemed to me a method of poking fun at the project. I have to emphasize again, more detailed analysis is not scheduled until the project is approved in principle by the ECA.

I did not say in the report or anywhere else that I was dealing with Procter and Gamble.

You are right about the statistics as they relate to Census Divisions 11, 14 and 15. But I also outlined five other approaches that we were going to use to update our market analysis and make sure we are on the right track if we are given the approval. I really don't think your evaluation is representative of the people of this region or the people of the Province of Alberta.

OPEN DISCUSSION PERIOD

MR. KYLLO:

Leo Kyllo, Western Conservation Foundation.

Mr. Manary from North Canadian Forest Industries commented on the compatibility of the small clearcut areas with wildlife management and increased range for the ungulate herds. Later he mentioned a point about chemical or some artificial suppression of shrub and herb growth in the reseeded areas. I question the compatibility of this herb and shrub suppression with the intended improved wildlife range.

MR. HAMMER:

Ellis Hammer. I speak as a private individual.

I have followed these hearings on the eastern slopes with great interest. My personal views are: first, what we know as the forestry trunk road should be paved. It should not be a super highway such as I have heard the Kananaskis development is.

Secondly, I support the wilderness areas that have been proposed for our generation and future generations.

Thirdly, I would like to see all vast commercial developments kept in confined regions such as the Crowsnest Corridor, the Canmore Corridor and along the Thompson Highway but not spread all the way along the Thompson Highway. They should be in Hinton rather than between Hinton and the park.

Finally, I can support the Kakwa Falls wilderness area as I understand it presented here tonight.

MR. ELIGH:

Peter Eligh. I'm a forester but I'm speaking as a private citizen.

The Province of Alberta has, in my opinion, some very stringent and excellent guidelines for the protection of watercourses. They are in the form of a five chain buffer zone for waterways. This can be varied by application to the forest officer of the area.

This morning Mr. Sully showed a slide of a clearcut directly abutting a stream. That was an example, I understand, of some degradation or at least some infringement upon watercourses. Later he was challenged by the forester from Canfor who said that in fact was not a mistake. The block system of cutting to within the stream course area had resulted in the necessity of thinning high trees because of possible wind throw. They had done this so trees wouldn't fall into the stream.

I support the forest service's stand and I would like to use this as a vehicle to say that the forest service possibly doesn't have the necessary administration or supervision. Why wasn't the clearcut block excluded altogether, or if in fact it was approved by a forest officer, what was the justification for going inside that five chain or 330 foot proximity to the stream?

MR. KNIGHT:

B.R. Knight from Valleyview. I'm speaking as a private individual.

On many of these clearcut areas it is said poplar could be taken out and used for some other by-product. I would like to see something done with this because I am interested in conservation and have been through a good many of these so-called clearcut areas. When you can't ride a horse then it's getting pretty rough. This poplar is possibly 12 inches through and I see no reason for it being just knocked down, tramped over with a cat and left that way. It will rot in 40 years, but what will we do with it in the meantime? They claim it's good cover for the trees coming up, but I think we should utilize some of this now. All areas concerned should look at some means of utilizing the downfall which is left in many of these clearcut areas.

MR. BILTEK:

Dave Biltek, Grande Prairie.

A great number of citizens and community organizations have presented briefs here. But Procter and Gamble, who have nothing to gain and everything to lose, or perhaps nothing to lose, did not present a brief. Neither did Imperial Lumber, Notice Exploration, Denison Mines nor any of the large corporations which have a vested interest in this area. I don't think they met their responsibility very well by not coming to this public hearing and discussing with us development in the eastern slopes.

I would like to congratulate North Canadian Forest Industries who did come to discuss with people what should be done in the eastern slopes.

I would like to make a comment about Torrens River Recreation Company, particularly to Mr. O'Donnell. Being a planner he must realize that the planner's ethic is with people not for people, not by experts but by amateurs, and that he should not criticize people for speaking as amateurs. He is a disgrace to his profession. The lack of responsibility which he showed as a planner is, perhaps, indicative of the responsibility of the company he represents in making this sort of development proposal for the Torrens River valley.

MR. MANARY:

Bill Manary, North Canadian Forest Industries.

I was worried about the fact that I might be polluting the water and various other things by spreading chemicals on the ground. Primarily we are after grasses and I mention the fact because it turned into an open discussion with Dr. Trost. We are continually looking at different methods of trying to establish a forest crop. I did mention the fact that we have a local company that is trying to gather information on a chemical that would be highly selective and would only kill grass. I'm not talking about shrubs or broadleafs or anything like that. So you have me nailed dead to rights.

But I think the ungulates that are here, apart from the elk, would be mostly browsers. In the forested areas, as you can appreciate, the elk are in the open grass and heavy water areas near streams and meadows. So it wouldn't necessarily be that incompatible.

I hate it when you get into professional arguments because when I went to university I heard many stories and some of them were rammed

down my throat until I got out long enough to find out there were other answers.

I made the suggestion that that was possibly a situation that happened on our claim. I said then it was an old selective cut that existed there, not a thinning operation as I later stated. In that operation, which could result in wind throw in the old system, 40 per cent of the stand was removed - all large diameters - leaving numerous holes in it. The forest service suggested that we go in and remove the taller trees on the five chain strip. This did not make an opening in the stand causing the wind tunnel which resulted when 40 per cent of the stand was removed.

In answer to the gentleman from Valleyview, I happen to be a cowboy myself. I happen to use that place as a dump-off and pickup spot for my ponies. I'm sorry Wild Kakwa beat me to the region. Now I go in the narrow way by the headwaters of Belcourt country. I have been out there for three years and I was wondering if I could use that trail down to Deadhorse and across.

I tried to get the point across a little earlier about the economics of poplar. It's used on a very local basis by small operators. Demit, for example, has used poplar to a small degree. But to date it is uneconomical to produce. I can bring to your attention the heavily subsidized industry that exists at Slave Lake right now, North American Stud, which has received federal aid to help it keep going. That's the only thing I can say as to why we don't, but I think you can appreciate our point. We are there and logging. We would be the first to take the poplar out if it were usable. It is a good nurse crop for the trees that do come underneath. You'll have to take my word for it as a forester.

MR. WHITE:

Randy White, private individual.

I would like to comment on the Torrens River project. If people really wanted to get out to see the wilderness, why should there be a hotel there? If they really want to see it they can go and become part of it. They don't have to destroy it to see it.

MR. DOWLING:

This is the tenth and closing session of the public hearings conducted by the Environment Conservation Authority on Land Use and Resource Development in the Eastern Slopes. We have been involved in these hearings for five weeks and and have sat in ten centres.

We have received in excess of 300 briefs and we have had audiences in excess of 2,000 - not all at one time! The plain fact is that we, the Environment Conservation Authority, are servants of the people and are here to listen to you and others like you. Your views and opinions help us to do our work better.

I am quite sincere in saying to you, and all others who appeared elsewhere, that we are most grateful for the time and effort which you the public have expended in assisting us. I can assure you that we will be thinking about you at the time we make our recommendations.

# LAND USE
# and
# RESOURCE DEVELOPMENT
# in the
# EASTERN SLOPES

## LIST OF PUBLICATIONS

The following publications prepared by or on behalf of the Authority are available on request while they remain in stock.

In some cases a charge will be made.
Requests should be addressed to,

ENVIRONMENT CONSERVATION AUTHORITY
9912-107th STREET EDMONTON, ALBERTA T5K 1G5
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ENVIRONMENT CONSERVATION AUTHORITY

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## LIST OF PUBLICATIONS

Environment Conservation Authority. Brochure. Revised edition. 1973.

Environment Conservation Act, 1970, being chapter 36 of the Statutes of Alberta, 1970, with amendments up to June 2, 1972, including pertinent sections of other acts referring to the Environment Conservation Authority. Office Compilation. 10 pages.

### Annual Report

Environment Conservation Authority. First annual report, November 1970 to November 1971. April, 1972. 101 pages.

Environment Conservation Authority. Second annual report, December 1971 to December 1972.

Environment Conservation Authority. Four Ways Forward: education, management, economics, legislation, 1972. 27 pages.

## PUBLIC HEARINGS

### Public Hearings on a Proposal to Restore Water Levels in Cooking and Hastings Lakes, August 23, 25, 1971

E.P.E.C. Consulting Ltd. An economic analysis of the Cooking and Hastings Lakes. June 10, 1971.

Macroplan Consultants Ltd. Recreation potential and development feasibility in Halfmoon, Hastings and Cooking Lakes. July - August, 1971.

Prospectus: Cooking and Hastings Lakes public hearings, Edmonton and South Cooking Lake, Alberta, August 23, 25, 1971. 8 pages.

Proceedings: public hearings on a proposal to restore water levels in Cooking and Hastings Lakes, August, 1971. 1 v.

Summary: public hearings on a proposal to restore water levels in Cooking and Hastings Lakes, August, 1971. 64 pages.

Report and Recommendations: public hearings on a proposal to restore water levels in Cooking and Hastings Lakes, August, 1971. (When available)

### Public Hearings on the Environmental Impact of Surface Mining in Alberta December 13, 15, 17, 21, 1971 and January 6, 1972

F.F. Slaney and Co. Environmental Impact of Surface Coal Mining Operations in Alberta. November, 1971. 59 pages. (Reproduced in the proceedings)

Prospectus: the environmental impact of surface mining in Alberta, December 13, 15, 17, 21, 1971 and January 6, 1972. 6 pages.

Proceedings: public hearings on the impact on the environment of surface mining in Alberta, December, 1971, January, 1972. 2 v. $4.00.

Summary: public hearings on the impact on the environment of surface mining in Alberta, December, 1971, January, 1972. 205 pages.

Report and Recommendations: public hearings on the impact on the environment of surface mining in Alberta, December, 1971, January, 1972. (When available)

Public Hearings on the Conservation of Archaeological and Historical Resources in Alberta
May 25, 29, June 1, 1972

A prospectus for public hearings: the conservation of historical and archaeological resources in Alberta, May 25, 29 and June 1, 1972. 7 pages.

Position paper for public hearings: the conservation of historical and archaeological resources in Alberta prepared by the Public Advisory Committee on the Conservation of Historical and Archaeological Resources. March, 1972. 8 pages. (Includes three page addendum)

Report: the conservation of historical and archaeological resources in Alberta prepared by the Public Advisory Committee on the Conservation of Historical and Archaeological Resources. March, 1972. 32 pages.

Proceedings: public hearings on the conservation of historical and archaeological resources in Alberta, May 25, 29 and June 1, 1972. 67 pages.

Report and Recommendations: public hearings on the conservation of historical and archaeological resources in Alberta, May 25, 29 and June 1, 1972. 120 pages.

Public Hearings on the Environmental Effects of the Operation of Sulphur Extraction Gas Plants
October 2, 5, 11, 16, 19, 1972

Klemm, R. K. Environmental effects of the operation of sulphur extraction gas plants. August, 1972. 116 pages.

Terms of reference for public hearings: environmental effects of the operation of sulphur extraction gas plants, June, 1972. 2 pages.

A prospectus for public hearings: environmental effects of the operation of sulphur extraction gas plants, October 2, 5, 11, 16 and 19, 1972. 8 pages.

Proceedings: public hearings on the environmental effects of the operation of sulphur extraction gas plants, October 2, 5, 11, 16 and 19, 1972. 3 v. 1,743 pages. $6.00.

*Report and Recommendations: public hearings on the environmental effects of the operation of sulphur extraction gas plants, October 2, 5, 11, 16 and 19, 1972. 128 pages.

## Public Hearings on Land Use and Resource Development in the Eastern Slopes June - July, 1973

Information Bulletin Number 1: Terms of reference.

Information Bulletin Number 2: Current Status Report on Alberta's Eastern Slopes.

Information Bulletin Number 3: Information Centres and Source Material.

Information Bulletin Number 4: Commercial Proposals Bulletin.

Information Bulletin Number 5: Planning Statement - Oldman River Regional Planning Commission.

Information Bulletin Number 6: Planning Statement - Calgary Regional Planning Commission.

Information Bulletin Number 7: Planning Statement - Red Deer Regional Planning Commission.

Information Bulletin Number 8: Planning Statement - Peace River Regional Planning Commission.

Information Bulletin Number 9: Planning Statement - Athabasca-Yellowhead

Information Bulletin Number 11: Task Force Position Paper.

Information Bulletin Number 12: Science Advisory Committee, Ad Hoc Committee Paper on Land Use and Resource Development in the Eastern Slopes.

## Public Hearings on the Restoration of Water Levels in the Peace-Athabasca Delta

A prospectus for public hearings: the restoration of water levels in the Peace-Athabasca Delta. September 25, 27 and October 2, 1973. 7 pages.

Smith, S.B. The Peace-Athabasca Delta, a choice of water management alternatives. August, 1973. 33 pages. (includes matrix)

The Peace-Athabasca Delta Project Group. Technical Report: a report on low levels in Lake Athabasca and their effects on the Peace-Athabasca Delta. 1973. 176 pages. illus.

The Peace-Athabasca Delta Project Group. Summary report: the Peace-Athabasca Delta, a Canadian resource. 1972. 144 pages. illus.

Public Advisory Committee on the Environment; proceedings of the first annual meeting, MacDonald Hotel, Edmonton, Alberta, November 25, 26, 1971. 125 pages.

Public Advisory Committee on the Environment; proceedings of the second annual meeting, Alberta Vocational Centre, Edmonton, Alberta, October 20, 21, 1972. 309 pages.

Science Advisory Committee; first annual report, 1972. 55 pages.

Additional Studies Available

Underwood, McLellan and Associates Ltd. A preliminary assessment of environmental impact of oil and gas exploration and pipeline operations in Alberta, June, 1972. 51 pages.

E.P.E.C. Consulting Ltd. and C.L. Sibbald, Agri - Business Ltd. The forest resource in Alberta: an examination with respect to Conservation, Recreation and the Forest Industry. 1972. $30.00.

DR. WALTER TROST

Trost, Dr. Walter Raymond. Environmental management; presented to the Edmonton Chamber of Commerce, February 16, 1972. 11 pages.

Trost, Dr. Walter Raymond. Employment, productivity and environment; presented at the annual convention of the Alberta Federation of Labour, Calgary, Alberta, May, 1971. 11 pages.

Trost, Dr. Walter Raymond. Managing the changing environment; presented to the 1973 Annual Convention of the Alberta Society of Petroleum Geologists, January 18, 1973. 8 pages.

*Being compiled at the time of this listing.